

# SAFETY DATA SHEET

## AccuScript High Fidelity 1st Strand cDNA Synthesis Kit

### Section 1. Identification

<b>Product identifier</b>	: AccuScript High Fidelity 1st Strand cDNA Synthesis Kit
<b>Part no. (chemical kit)</b>	: 200820
<b>Part no.</b>	: RNase-Free Water 600164-58
	AccuScript High Fidelity RT 600089-54
	10X AccuScript RT Buffer 600089-52
	RNase Block 200820-56
	100 mM dNTP Mix (25 mM each dNTP) 200820-55
	Oligo(dT) Primer 200820-52
	Random Primers 200420-53
	100 mM DTT 600089-53

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

<b>Identified uses</b>	: Analytical reagent.
	RNase-Free Water 1.2 ml
	AccuScript High Fidelity RT 0.05 ml (50 reactions)
	10X AccuScript RT Buffer 0.1 ml
	RNase Block 0.025 ml (1000 U 40 U/μl)
	100 mM dNTP Mix (25 mM each dNTP) 0.04 ml
	Oligo(dT) Primer 0.05 ml (25 μg 0.5 μg/μl)
	Random Primers 0.15 ml (15 μg 0.1 μg/μl)
	100 mM DTT 0.1 ml

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

**Emergency telephone number (with hours of operation)** : CHEMTREC®: 1-800-424-9300

### Section 2. Hazard identification

#### Classification of the substance or mixture

**AccuScript High Fidelity RT**  
H320 EYE IRRITATION - Category 2B

**RNase Block**  
H320 EYE IRRITATION - Category 2B

#### GHS label elements

<b>Signal word</b>	: RNase-Free Water	No signal word.
	AccuScript High Fidelity RT	Warning
	10X AccuScript RT Buffer	No signal word.
	RNase Block	Warning
	100 mM dNTP Mix (25 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. Hazard identification

<b>Hazard statements</b>	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Buffer RNase Block 100 mM dNTP Mix (25 mM each dNTP) Oligo(dT) Primer Random Primers 100 mM DTT	No known significant effects or critical hazards. H320 - Causes eye irritation. No known significant effects or critical hazards. H320 - 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.
<b>Precautionary statements</b>		
<b>Prevention</b>	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Buffer RNase Block 100 mM dNTP Mix (25 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.
<b>Response</b>	: RNase-Free Water AccuScript High Fidelity RT  10X AccuScript RT Buffer RNase Block  100 mM dNTP Mix (25 mM each dNTP) Oligo(dT) Primer Random Primers 100 mM DTT	Not applicable. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention. Not applicable. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention. Not applicable. Not applicable. Not applicable. Not applicable.
<b>Storage</b>	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Buffer RNase Block 100 mM dNTP Mix (25 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.
<b>Disposal</b>	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Buffer RNase Block 100 mM dNTP Mix (25 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.

## Section 2. Hazard identification

<b>Supplemental label elements</b>	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Buffer RNase Block 100 mM dNTP Mix (25 mM each dNTP) Oligo(dT) Primer Random Primers 100 mM DTT 100 mM dNTP Mix (25 mM each dNTP)	None known. None known. None known. None known. None known. None known. None known. None known. Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 5.7%
<b>Other hazards which do not result in classification</b>	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Buffer RNase Block 100 mM dNTP Mix (25 mM each dNTP) Oligo(dT) Primer Random Primers 100 mM DTT	None known. None known. None known. None known. None known. None known. None known. None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Buffer RNase Block 100 mM dNTP Mix (25 mM each dNTP) Oligo(dT) Primer Random Primers 100 mM DTT	Substance Mixture Mixture Mixture Mixture Mixture Mixture Mixture
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Ingredient name	Synonyms	% (w/w)	CAS number
<b>RNase-Free Water</b> water	Water	100	7732-18-5
<b>AccuScript High Fidelity RT</b> Glycerol	Glycerol	≥30 - ≤60	56-81-5
<b>10X AccuScript RT Buffer</b> Potassium chloride	Potassium Chloride	≥5 - ≤10	7447-40-7
<b>RNase Block</b> Glycerol	Glycerol	≥30 - ≤60	56-81-5
<b>100 mM DTT</b> (R*,R*)-1,4-Dimercaptobutane-2,3-diol	Dithiotreitol	≥1 - ≤5	3483-12-3

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

## Section 3. Composition/information on ingredients

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

### Description of necessary first aid measures

<b>Eye contact</b>	: RNase-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 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.
	RNase Block	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.
	100 mM dNTP Mix (25 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.
<b>Inhalation</b>	: RNase-Free Water	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 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

## Section 4. First-aid measures

		decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	RNase Block	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.
	100 mM dNTP Mix (25 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.
<b>Skin contact</b>	: RNase-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 Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	RNase Block	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.
	100 mM dNTP Mix (25 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.

## Section 4. First-aid measures

<b>Ingestion</b>	: RNase-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	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 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.
	RNase Block	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.
	100 mM dNTP Mix (25 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.

### Most important symptoms/effects, acute and delayed

## Section 4. First-aid measures

### Potential acute health effects

<b>Eye contact</b>	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Buffer RNase Block 100 mM dNTP Mix (25 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.
<b>Inhalation</b>	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Buffer RNase Block 100 mM dNTP Mix (25 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.
<b>Skin contact</b>	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Buffer RNase Block 100 mM dNTP Mix (25 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.
<b>Ingestion</b>	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Buffer RNase Block 100 mM dNTP Mix (25 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.

### Over-exposure signs/symptoms

<b>Eye contact</b>	: RNase-Free Water AccuScript High Fidelity RT  10X AccuScript RT Buffer RNase Block  100 mM dNTP Mix (25 mM each dNTP) Oligo(dT) Primer Random Primers 100 mM DTT	No specific data. Adverse symptoms may include the following: irritation watering redness No specific data. Adverse symptoms may include the following: irritation watering redness No specific data.  No specific data. No specific data. No specific data.
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## Section 4. First-aid measures

<b>Inhalation</b>	:	☒ RNase-Free Water	No specific data.
		AccuScript High Fidelity RT	No specific data.
		10X AccuScript RT Buffer	No specific data.
		RNase Block	No specific data.
		100 mM dNTP Mix (25 mM each dNTP)	No specific data.
		Oligo(dT) Primer	No specific data.
		Random Primers	No specific data.
<b>Skin contact</b>	:	☒ RNase-Free Water	No specific data.
		AccuScript High Fidelity RT	No specific data.
		10X AccuScript RT Buffer	No specific data.
		RNase Block	No specific data.
		100 mM dNTP Mix (25 mM each dNTP)	No specific data.
		Oligo(dT) Primer	No specific data.
		Random Primers	No specific data.
<b>Ingestion</b>	:	☒ RNase-Free Water	No specific data.
		AccuScript High Fidelity RT	No specific data.
		10X AccuScript RT Buffer	No specific data.
		RNase Block	No specific data.
		100 mM dNTP Mix (25 mM each dNTP)	No specific data.
		Oligo(dT) Primer	No specific data.
		Random Primers	No specific data.
	100 mM DTT	No specific data.	

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

<b>Notes to physician</b>	:	☒ RNase-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 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.
		RNase Block	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		100 mM dNTP Mix (25 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.



## Section 4. First-aid measures

<b>Specific treatments</b>	:	☒ RNase-Free Water	No specific treatment.
		AccuScript High Fidelity RT	No specific treatment.
		10X AccuScript RT Buffer	No specific treatment.
		RNase Block	No specific treatment.
		100 mM dNTP Mix (25 mM each dNTP)	No specific treatment.
		Oligo(dT) Primer	No specific treatment.
<b>Protection of first-aiders</b>	:	☒ RNase-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 Buffer	No action shall be taken involving any personal risk or without suitable training.
		RNase Block	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.
		100 mM dNTP Mix (25 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

### Extinguishing media

<b>Suitable extinguishing media</b>	:	☒ RNase-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 Buffer	Use an extinguishing agent suitable for the surrounding fire.
		RNase Block	Use an extinguishing agent suitable for the surrounding fire.
		100 mM dNTP Mix (25 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.
<b>Unsuitable extinguishing media</b>	:	☒ RNase-Free Water	None known.
		AccuScript High Fidelity RT	None known.
		10X AccuScript RT Buffer	None known.
		RNase Block	None known.
		100 mM dNTP Mix (25 mM each dNTP)	None known.
		Oligo(dT) Primer	None known.
		Random Primers	None known.

## Section 5. Fire-fighting measures

	100 mM DTT	None known.
<b>Specific hazards arising from the chemical</b>	: RNase-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 Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
	RNase Block	In a fire or if heated, a pressure increase will occur and the container may burst.
	100 mM dNTP Mix (25 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.
<b>Hazardous thermal decomposition products</b>	100 mM DTT	In a fire or if heated, a pressure increase will occur and the container may burst.
	: RNase-Free Water	No specific data.
	AccuScript High Fidelity RT	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	10X AccuScript RT Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
	RNase Block	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	100 mM dNTP Mix (25 mM each dNTP)	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides
	Oligo(dT) Primer Random Primers 100 mM DTT	No specific data. No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides
<b>Special protective actions for fire-fighters</b>	: 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 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

## Section 5. Fire-fighting measures

	RNase Block	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.
	100 mM dNTP Mix (25 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.
<b>Special protective equipment for fire-fighters</b>	: RNase-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 Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	RNase Block	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 dNTP Mix (25 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

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel**

: RNase-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 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.

RNase Block

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.

100 mM dNTP Mix (25 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 surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

Random Primers

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.

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 spilled material. Put on appropriate personal protective equipment.

## Section 6. Accidental release measures

### For emergency responders : RNase-Free Water

AccuScript High Fidelity RT

10X AccuScript RT Buffer

RNase Block

100 mM dNTP Mix (25 mM each dNTP)

Oligo(dT) Primer

Random Primers

100 mM DTT

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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### Environmental precautions : RNase-Free Water

AccuScript High Fidelity RT

10X AccuScript RT Buffer

RNase Block

100 mM dNTP Mix (25 mM each dNTP)

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).

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).

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).

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).

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).

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 6. Accidental release measures

Random Primers	Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). 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).

### Methods and materials for containment and cleaning up

**Methods for cleaning up** : RNase-Free Water

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 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.
RNase Block	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 dNTP Mix (25 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.



## Section 6. Accidental release measures

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

### Precautions for safe handling

#### Protective measures

RNase-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 Buffer	Put on appropriate personal protective equipment (see Section 8).
RNase Block	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.
100 mM dNTP Mix (25 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

RNase-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 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.
RNase Block	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face



## Section 7. Handling and storage

100 mM dNTP Mix (25 mM each dNTP)

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.

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.

**Conditions for safe storage, including any incompatibilities** : 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 unlabeled 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

10X AccuScript RT 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

## Section 7. Handling and storage

RNase Block

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. 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 dNTP Mix (25 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

## Section 7. Handling and storage

incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### [Control parameters](#)

### [Occupational exposure limits](#)

Ingredient name	Exposure limits
<b>AccuScript High Fidelity RT</b> Glycerol	<b>CA Alberta Provincial (Canada, 3/2023).</b> OEL: 10 mg/m <sup>3</sup> 8 hours. Form: Mist <b>CA Quebec Provincial (Canada, 9/2023).</b> TWAEV: 10 mg/m <sup>3</sup> 8 hours. Form: mist <b>CA Saskatchewan Provincial (Canada, 4/2021).</b> STEL: 20 mg/m <sup>3</sup> 15 minutes. Form: mist TWA: 10 mg/m <sup>3</sup> 8 hours. Form: mist <b>CA British Columbia Provincial (Canada, 8/2023).</b> TWA: 3 mg/m <sup>3</sup> 8 hours. Form: respirable mist TWA: 10 mg/m <sup>3</sup> 8 hours. Form: total mist
<b>RNase Block</b> Glycerol	<b>CA Alberta Provincial (Canada, 3/2023).</b> OEL: 10 mg/m <sup>3</sup> 8 hours. Form: Mist <b>CA Quebec Provincial (Canada, 9/2023).</b> TWAEV: 10 mg/m <sup>3</sup> 8 hours. Form: mist <b>CA Saskatchewan Provincial (Canada, 4/2021).</b> STEL: 20 mg/m <sup>3</sup> 15 minutes. Form: mist TWA: 10 mg/m <sup>3</sup> 8 hours. Form: mist <b>CA British Columbia Provincial (Canada, 8/2023).</b> TWA: 3 mg/m <sup>3</sup> 8 hours. Form: respirable mist TWA: 10 mg/m <sup>3</sup> 8 hours. Form: total mist

### [Biological exposure indices](#)

No exposure indices known.

- 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.

## Section 8. Exposure controls/personal protection

- 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

<b>Physical state</b>	:	RNase-Free Water	Liquid.
		AccuScript High Fidelity RT	Liquid.
		10X AccuScript RT Buffer	Liquid.
		RNase Block	Liquid.
		100 mM dNTP Mix (25 mM each dNTP)	Liquid.
		Oligo(dT) Primer	Liquid.
		Random Primers	Liquid.
<b>Color</b>	:	RNase-Free Water	Colorless.
		AccuScript High Fidelity RT	Not available.
		10X AccuScript RT Buffer	Not available.
		RNase Block	Not available.
		100 mM dNTP Mix (25 mM each dNTP)	Not available.
		Oligo(dT) Primer	Not available.
		Random Primers	Not available.
<b>Odor</b>	:	RNase-Free Water	Odorless.
		AccuScript High Fidelity RT	Not available.
		10X AccuScript RT Buffer	Not available.
		RNase Block	Not available.
		100 mM dNTP Mix (25 mM each dNTP)	Not available.
		Oligo(dT) Primer	Not available.
		Random Primers	Not available.
		100 mM DTT	Not available.

## Section 9. Physical and chemical properties and safety characteristics

**Odor threshold** :

RNase-Free Water	Not available.
AccuScript High Fidelity RT	Not available.
10X AccuScript RT Buffer	Not available.
RNase Block	Not available.
100 mM dNTP Mix (25 mM each dNTP)	Not available.
Oligo(dT) Primer	Not available.
Random Primers	Not available.
100 mM DTT	Not available.

**pH** :

RNase-Free Water	7
AccuScript High Fidelity RT	8
10X AccuScript RT Buffer	8.3
RNase Block	7.6
100 mM dNTP Mix (25 mM each dNTP)	7.5
Oligo(dT) Primer	7.5
Random Primers	7.5
100 mM DTT	Not available.

**Melting point/freezing point** :

RNase-Free Water	0°C (32°F)
AccuScript High Fidelity RT	Not available.
10X AccuScript RT Buffer	Not available.
RNase Block	Not available.
100 mM dNTP Mix (25 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 Buffer	Not available.
RNase Block	Not available.
100 mM dNTP Mix (25 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
<b>AccuScript High Fidelity RT</b>						
Glycerol	-	-	-	177	350.6	-
<b>RNase Block</b>						
Glycerol	-	-	-	177	350.6	-
<b>100 mM DTT</b>						
(R*,R*) -1,4-Dimercaptobutane-2,3-diol	>110	>230	-	-	-	-

## Section 9. Physical and chemical properties and safety characteristics

<b>Evaporation rate</b>	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Buffer RNase Block 100 mM dNTP Mix (25 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.
<b>Flammability</b>	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Buffer RNase Block 100 mM dNTP Mix (25 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.
<b>Lower and upper explosion limit/flammability limit</b>	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Buffer RNase Block 100 mM dNTP Mix (25 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.
<b>Vapor pressure</b>	: RNase-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
<b>AccuScript High Fidelity RT</b>						
water	17.5	2.3	-	92.258	12.3	-
Glycerol	0.000075	0.00001	-	0.0025	0.00033	-
<b>10X AccuScript RT Buffer</b>						
water	17.5	2.3	-	92.258	12.3	-
<b>RNase Block</b>						
water	17.5	2.3	-	92.258	12.3	-
Glycerol	0.000075	0.00001	-	0.0025	0.00033	-
<b>100 mM dNTP Mix (25 mM each dNTP)</b>						

## Section 9. Physical and chemical properties and safety characteristics

water	17.5	2.3	-	92.258	12.3	-
<b>Oligo(dT) Primer</b>						
water	17.5	2.3	-	92.258	12.3	-
<b>Random Primers</b>						
water	17.5	2.3	-	92.258	12.3	-
<b>100 mM DTT</b>						
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 Buffer	Not available.
RNase Block	Not available.
100 mM dNTP Mix (25 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 Buffer	Not available.
RNase Block	Not available.
100 mM dNTP Mix (25 mM each dNTP)	Not available.
Oligo(dT) Primer	Not available.
Random Primers	Not available.
100 mM DTT	Not available.

**Solubility(ies)** :

Media	Result
<b>RNase-Free Water</b>	
water	Soluble
<b>AccuScript High Fidelity RT</b>	
water	Soluble
<b>10X AccuScript RT Buffer</b>	
water	Soluble
<b>RNase Block</b>	
water	Soluble
<b>100 mM dNTP Mix (25 mM each dNTP)</b>	
water	Soluble
<b>Oligo(dT) Primer</b>	
water	Soluble
<b>Random Primers</b>	
water	Soluble
<b>100 mM DTT</b>	
water	Soluble



## Section 9. Physical and chemical properties and safety characteristics

<b>Partition coefficient: n-octanol/water</b>	: RNase-Free Water	-1.38
	AccuScript High Fidelity RT	Not applicable.
	10X AccuScript RT Buffer	Not applicable.
	RNase Block	Not applicable.
	100 mM dNTP Mix (25 mM each dNTP)	Not applicable.
	Oligo(dT) Primer	Not applicable.
	Random Primers	Not applicable.
	100 mM DTT	Not applicable.

<b>Auto-ignition temperature</b>	: <b>Ingredient name</b>	<b>°C</b>	<b>°F</b>	<b>Method</b>
	AccuScript High Fidelity RT			
	Glycerol	370	698	-
	<b>RNase Block</b>			
	Glycerol	370	698	-

<b>Decomposition temperature</b>	: RNase-Free Water	Not available.
	AccuScript High Fidelity RT	Not available.
	10X AccuScript RT Buffer	Not available.
	RNase Block	Not available.
	100 mM dNTP Mix (25 mM each dNTP)	Not available.
	Oligo(dT) Primer	Not available.
	Random Primers	Not available.
	100 mM DTT	Not available.

<b>Viscosity</b>	: RNase-Free Water	Not available.
	AccuScript High Fidelity RT	Not available.
	10X AccuScript RT Buffer	Not available.
	RNase Block	Not available.
	100 mM dNTP Mix (25 mM each dNTP)	Not available.
	Oligo(dT) Primer	Not available.
	Random Primers	Not available.
	100 mM DTT	Not available.

### Particle characteristics

<b>Median particle size</b>	: RNase-Free Water	Not applicable.
	AccuScript High Fidelity RT	Not applicable.
	10X AccuScript RT Buffer	Not applicable.
	RNase Block	Not applicable.
	100 mM dNTP Mix (25 mM each dNTP)	Not applicable.
	Oligo(dT) Primer	Not applicable.
	Random Primers	Not applicable.
	100 mM DTT	Not applicable.

## Section 10. Stability and reactivity

<b>Reactivity</b>	: RNase-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 Buffer	No specific test data related to reactivity available for this product or its ingredients.
	RNase Block	No specific test data related to reactivity available for this product or its ingredients.

## Section 10. Stability and reactivity

	100 mM dNTP Mix (25 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.
<b>Chemical stability</b>	: RNase-Free Water	The product is stable.
	AccuScript High Fidelity RT	The product is stable.
	10X AccuScript RT Buffer	The product is stable.
	RNase Block	The product is stable.
	100 mM dNTP Mix (25 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.
<b>Possibility of hazardous reactions</b>	: RNase-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 Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
	RNase Block	Under normal conditions of storage and use, hazardous reactions will not occur.
	100 mM dNTP Mix (25 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.
<b>Conditions to avoid</b>	: RNase-Free Water	No specific data.
	AccuScript High Fidelity RT	No specific data.
	10X AccuScript RT Buffer	No specific data.
	RNase Block	No specific data.
	100 mM dNTP Mix (25 mM each dNTP)	No specific data.
	Oligo(dT) Primer	No specific data.
	Random Primers	No specific data.
	100 mM DTT	No specific data.
<b>Incompatible materials</b>	: RNase-Free Water	May react or be incompatible with oxidizing materials.
	AccuScript High Fidelity RT	May react or be incompatible with oxidizing materials.
	10X AccuScript RT Buffer	May react or be incompatible with oxidizing materials.
	RNase Block	May react or be incompatible with oxidizing materials.
	100 mM dNTP Mix (25 mM each dNTP)	May react or be incompatible with oxidizing materials.
	Oligo(dT) Primer	May react or be incompatible with oxidizing materials.
	Random Primers	May react or be incompatible with oxidizing materials.
	100 mM DTT	May react or be incompatible with oxidizing materials.

## Section 10. Stability and reactivity

<b>Hazardous decomposition products</b>	: 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 Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	RNase Block	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	100 mM dNTP Mix (25 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

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<b>AccuScript High Fidelity RT</b> Glycerol	LD50 Oral	Rat	12600 mg/kg	-
<b>10X AccuScript RT Buffer</b> Potassium chloride	LD50 Oral	Rat	2600 mg/kg	-
<b>RNase Block</b> Glycerol	LD50 Oral	Rat	12600 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>AccuScript High Fidelity RT</b> Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
<b>10X AccuScript RT Buffer</b> Potassium chloride	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
<b>RNase Block</b> Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

## Section 11. Toxicological information

### Sensitization

Not available.

### Conclusion/Summary

**Skin** : 100 Mm DTT: May cause skin sensitization.

### 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
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.

### Information on the likely routes of exposure

RNase-Free Water	Not available.
AccuScript High Fidelity RT	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
10X AccuScript RT Buffer	Not available.
RNase Block	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
100 mM dNTP Mix (25 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

#### Eye contact

RNase-Free Water	No known significant effects or critical hazards.
AccuScript High Fidelity RT	Causes eye irritation.
10X AccuScript RT Buffer	No known significant effects or critical hazards.
RNase Block	Causes eye irritation.
100 mM dNTP Mix (25 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

<b>Inhalation</b>	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Buffer RNase Block 100 mM dNTP Mix (25 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.
<b>Skin contact</b>	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Buffer RNase Block 100 mM dNTP Mix (25 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.
<b>Ingestion</b>	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Buffer RNase Block 100 mM dNTP Mix (25 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.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Eye contact</b>	: RNase-Free Water AccuScript High Fidelity RT  10X AccuScript RT Buffer RNase Block  100 mM dNTP Mix (25 mM each dNTP) Oligo(dT) Primer Random Primers 100 mM DTT	No specific data. Adverse symptoms may include the following: irritation watering redness No specific data. Adverse symptoms may include the following: irritation watering redness No specific data. No specific data. No specific data. No specific data.
<b>Inhalation</b>	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Buffer RNase Block 100 mM dNTP Mix (25 mM each dNTP) Oligo(dT) Primer Random Primers 100 mM DTT	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.

## Section 11. Toxicological information

<b>Skin contact</b>	: RNase-Free Water	No specific data.
	AccuScript High Fidelity RT	No specific data.
	10X AccuScript RT Buffer	No specific data.
	RNase Block	No specific data.
	100 mM dNTP Mix (25 mM each dNTP)	No specific data.
	Oligo(dT) Primer	No specific data.
	Random Primers	No specific data.
<b>Ingestion</b>	: RNase-Free Water	No specific data.
	AccuScript High Fidelity RT	No specific data.
	10X AccuScript RT Buffer	No specific data.
	RNase Block	No specific data.
	100 mM dNTP Mix (25 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.

#### Potential chronic health effects

**General** : RNase-Free Water No known significant effects or critical hazards.  
 AccuScript High Fidelity RT No known significant effects or critical hazards.  
 10X AccuScript RT Buffer No known significant effects or critical hazards.  
 RNase Block No known significant effects or critical hazards.  
 100 mM dNTP Mix (25 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** : RNase-Free Water No known significant effects or critical hazards.  
 AccuScript High Fidelity RT No known significant effects or critical hazards.  
 10X AccuScript RT Buffer No known significant effects or critical hazards.  
 RNase Block No known significant effects or critical hazards.  
 100 mM dNTP Mix (25 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** : RNase-Free Water No known significant effects or critical hazards.  
 AccuScript High Fidelity RT No known significant effects or critical hazards.  
 10X AccuScript RT Buffer No known significant effects or critical hazards.  
 RNase Block No known significant effects or critical hazards.  
 100 mM dNTP Mix (25 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

<b>Reproductive toxicity</b>	: RNase-Free Water AccuScript High Fidelity RT 10X AccuScript RT Buffer RNase Block 100 mM dNTP Mix (25 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.
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### 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)
<b>AccuScript High Fidelity RT</b> Glycerol	12600	N/A	N/A	N/A	N/A
<b>10X AccuScript RT Buffer</b> 10X AccuScript RT Buffer Potassium chloride	46428.6 2600	N/A N/A	N/A N/A	N/A N/A	N/A N/A
<b>RNase Block</b> Glycerol	12600	N/A	N/A	N/A	N/A
<b>100 mM DTT</b> 100 mM DTT (R*,R*)-1,4-Dimercaptobutane-2,3-diol	33333.3 500	N/A N/A	N/A N/A	N/A N/A	N/A N/A

<b>Other information</b>	: 100 mM DTT	Adverse symptoms may include the following: May cause sensitization by skin contact.
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## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
<b>AccuScript High Fidelity RT</b> Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
<b>10X AccuScript RT Buffer</b> Potassium chloride	Acute EC50 9.24 g/L Fresh water	Algae - <i>Desmodesmus subspicatus</i>	72 hours
	Acute EC50 1337000 µg/l Fresh water	Algae - <i>Navicula seminulum</i>	96 hours
	Acute LC50 9.68 mg/l Fresh water	Crustaceans - <i>Pseudosida ramosa</i> - Neonate	48 hours
	Acute LC50 93000 µg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 509.65 mg/l Fresh water	Fish - <i>Danio rerio</i>	96 hours
<b>RNase Block</b> Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
<b>100 mM DTT</b> (R*,R*)	Acute LC50 27000 µg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours



## Section 12. Ecological information

-1,4-Dimercaptobutane-2,3-diol			
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### Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
<b>AccuScript High Fidelity RT</b> Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
<b>RNase Block</b> Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>RNase-Free Water</b> water	-	-	Readily
<b>10X AccuScript RT Buffer</b> Potassium chloride	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>RNase-Free Water</b> water	-1.38	-	Low
<b>AccuScript High Fidelity RT</b> Glycerol	-1.76	-	Low
<b>10X AccuScript RT Buffer</b> Potassium chloride	-0.46	-	Low
<b>RNase Block</b> Glycerol	-1.76	-	Low

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

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

## Section 13. Disposal considerations

**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 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.

## Section 14. Transport information

**TDG / 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

### Canadian lists

**Canadian NPRI** : None of the components are listed.

**CEPA Toxic substances** : None of the components are listed.

### 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

**Canada** : Not determined.

**United States** : All components are active or exempted.

## Section 16. Other information

### History

**Date of issue/Date of revision** : 05/31/2024

**Date of previous issue** : 05/24/2021

**Version** : 7

### Key to abbreviations

: ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 HPR = Hazardous Products Regulations  
 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

### Procedure used to derive the classification

Classification	Justification
AccuScript High Fidelity RT EYE IRRITATION - Category 2B	Calculation method
RNase Block EYE IRRITATION - Category 2B	Calculation method

Indicates information that has changed from previously issued version.

### Notice to reader

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