

SAFETY DATA SHEET

AffinityScript Multiple Temperature cDNA Synthesis Kit

Section 1. Identification

Product identifier	: AffinityScript Multiple Temperature cDNA Synthesis Kit		
Part no. (chemical kit)	: 200436		
Part no.	: RNase-Free Water	600164-58	
	AffinityScript Multiple Temperature Reverse Transcriptase	200436-60	
	10X AffinityScript RT buffer	200420-54	
	RNase Block	200820-56	
	Oligo(dT) Primer	200820-52	
	Random Primers	200420-53	
	100 mM dNTP Mix (25 mM each dNTP)	200820-55	

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

Identified uses	: Analytical reagent.		
	: RNase-Free Water	1.2 ml	
	AffinityScript Multiple Temperature Reverse Transcriptase	0.05 ml (50 reactions)	
	10X AffinityScript RT buffer	0.1 ml	
	RNase Block	0.025 ml (1000 U 40 U/μl)	
	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 dNTP Mix (25 mM each dNTP)	0.04 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

AffinityScript Multiple Temperature Reverse Transcriptase

H320 EYE IRRITATION - Category 2B

RNase Block

H320 EYE IRRITATION - Category 2B

GHS label elements

Signal word	: RNase-Free Water	No signal word.
	AffinityScript Multiple Temperature Reverse Transcriptase	Warning
	10X AffinityScript RT buffer	No signal word.
	RNase Block	Warning
	Oligo(dT) Primer	No signal word.
	Random Primers	No signal word.
	100 mM dNTP Mix (25 mM)	No signal word.

Section 2. Hazard identification

	each dNTP)	
Hazard statements	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)	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.
Precautionary statements		
Prevention	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Response	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)	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.
Storage	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Disposal	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.

Section 2. Hazard identification

Supplemental label elements	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP) 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%
Other hazards which do not result in classification	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)	None known. None known. None known. None known. None known. None known. None known. None known.

Section 3. Composition/information on ingredients

Substance/mixture	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)	Substance Mixture Mixture Mixture Mixture Mixture Mixture
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Ingredient name	Synonyms	% (w/w)	CAS number
RNase-Free Water water	Water	100	7732-18-5
AffinityScript Multiple Temperature Reverse Transcriptase Glycerol	Glycerol	≥30 - ≤60	56-81-5
10X AffinityScript RT buffer Potassium chloride	Potassium Chloride	≥5 - ≤10	7447-40-7
RNase Block Glycerol	Glycerol	≥30 - ≤60	56-81-5

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

Eye contact	: 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.
	AffinityScript Multiple Temperature Reverse Transcriptase	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 AffinityScript 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.
	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 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.
Inhalation	: RNase-Free Water	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	AffinityScript Multiple Temperature Reverse Transcriptase	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 AffinityScript 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 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

Section 4. First-aid measures

		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.
	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 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.
Skin contact	: RNase-Free Water	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	AffinityScript Multiple Temperature Reverse Transcriptase	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 AffinityScript 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.
	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 dNTP Mix (25 mM each dNTP)	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: 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.
	AffinityScript Multiple Temperature Reverse Transcriptase	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

Section 4. First-aid measures

	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 AffinityScript 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.
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 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)	No known significant effects or critical hazards. Causes eye irritation.
Inhalation	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers	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.

Section 4. First-aid measures

	100 mM dNTP Mix (25 mM each dNTP)	No known significant effects or critical hazards.
Skin contact	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase	No known significant effects or critical hazards. No known significant effects or critical hazards.
	10X AffinityScript RT buffer	No known significant effects or critical hazards.
	RNase Block	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 dNTP Mix (25 mM each dNTP)	No known significant effects or critical hazards.
Ingestion	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase	No known significant effects or critical hazards. No known significant effects or critical hazards.
	10X AffinityScript RT buffer	No known significant effects or critical hazards.
	RNase Block	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 dNTP Mix (25 mM each dNTP)	No known significant effects or critical hazards.
<u>Over-exposure signs/symptoms</u>		
Eye contact	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase	No specific data. Adverse symptoms may include the following:
		irritation watering redness
	10X AffinityScript RT buffer RNase Block	No specific data. Adverse symptoms may include the following:
		irritation watering redness
	Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)	No specific data. No specific data. No specific data.
Inhalation	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase	No specific data. No specific data.
	10X AffinityScript RT buffer	No specific data.
	RNase Block	No specific data.
	Oligo(dT) Primer	No specific data.
	Random Primers	No specific data.
	100 mM dNTP Mix (25 mM each dNTP)	No specific data.
Skin contact	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase	No specific data. No specific data.
	10X AffinityScript RT buffer	No specific data.
	RNase Block	No specific data.
	Oligo(dT) Primer	No specific data.
	Random Primers	No specific data.
	100 mM dNTP Mix (25 mM each dNTP)	No specific data.

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Ingestion	:	RNase-Free Water	No specific data.
		AffinityScript Multiple Temperature Reverse Transcriptase	No specific data.
		10X AffinityScript RT buffer	No specific data.
		RNase Block	No specific data.
		Oligo(dT) Primer	No specific data.
		Random Primers	No specific data.
		100 mM dNTP Mix (25 mM each dNTP)	No specific data.

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

Notes to physician	:	RNase-Free Water	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		AffinityScript Multiple Temperature Reverse Transcriptase	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		10X AffinityScript 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.
		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 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.

Specific treatments	:	RNase-Free Water	No specific treatment.
		AffinityScript Multiple Temperature Reverse Transcriptase	No specific treatment.
		10X AffinityScript RT buffer	No specific treatment.
		RNase Block	No specific treatment.
		Oligo(dT) Primer	No specific treatment.
		Random Primers	No specific treatment.
		100 mM dNTP Mix (25 mM each dNTP)	No specific treatment.

Protection of first-aiders	:	RNase-Free Water	No action shall be taken involving any personal risk or without suitable training.
		AffinityScript Multiple Temperature Reverse Transcriptase	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 AffinityScript 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.
		Oligo(dT) Primer	No action shall be taken involving any personal risk or without suitable training.

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Random Primers	No action shall be taken involving any personal risk or without suitable training.
100 mM dNTP Mix (25 mM each dNTP)	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

Suitable extinguishing media	: RNase-Free Water	Use an extinguishing agent suitable for the surrounding fire.
	AffinityScript Multiple Temperature Reverse Transcriptase	Use an extinguishing agent suitable for the surrounding fire.
	10X AffinityScript RT buffer	Use an extinguishing agent suitable for the surrounding fire.
	RNase Block	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.
Unsuitable extinguishing media	100 mM dNTP Mix (25 mM each dNTP)	Use an extinguishing agent suitable for the surrounding fire.
	: RNase-Free Water	None known.
	AffinityScript Multiple Temperature Reverse Transcriptase	None known.
	10X AffinityScript RT buffer	None known.
	RNase Block	None known.
	Oligo(dT) Primer	None known.
Random Primers	None known.	
100 mM dNTP Mix (25 mM each dNTP)	None known.	

Specific hazards arising from the chemical

: RNase-Free Water	In a fire or if heated, a pressure increase will occur and the container may burst.
AffinityScript Multiple Temperature Reverse Transcriptase	In a fire or if heated, a pressure increase will occur and the container may burst.
10X AffinityScript 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.
Oligo(dT) Primer	In a fire or if heated, a pressure increase will occur and the container may burst.
Random Primers	In a fire or if heated, a pressure increase will occur and the container may burst.
100 mM dNTP Mix (25 mM each dNTP)	In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products

: RNase-Free Water	No specific data.
AffinityScript Multiple Temperature Reverse Transcriptase	Decomposition products may include the following materials:
	carbon dioxide
	carbon monoxide
10X AffinityScript RT buffer	Decomposition products may include the following materials:

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		carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
	RNase Block	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	Oligo(dT) Primer	No specific data.
	Random Primers	No specific data.
	100 mM dNTP Mix (25 mM each dNTP)	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides

Special protective actions for fire-fighters

	: 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.
	AffinityScript Multiple Temperature Reverse Transcriptase	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 AffinityScript 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 without suitable training.
	RNase Block	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 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.

Special protective equipment for fire-fighters

	: 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.
	AffinityScript Multiple Temperature Reverse Transcriptase	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	10X AffinityScript 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

Section 5. Fire-fighting measures

Oligo(dT) Primer	(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.
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 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.

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.
	AffinityScript Multiple Temperature Reverse Transcriptase	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 AffinityScript 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.
	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 dNTP Mix (25 mM each dNTP)	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding

Section 6. Accidental release measures

For emergency responders : RNase-Free Water

AffinityScript Multiple
Temperature Reverse
Transcriptase

10X AffinityScript RT buffer

RNase Block

Oligo(dT) Primer

Random Primers

100 mM dNTP Mix (25 mM
each dNTP)

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".

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Environmental precautions : RNase-Free Water

AffinityScript Multiple
Temperature Reverse
Transcriptase

10X AffinityScript RT buffer

RNase Block

Oligo(dT) Primer

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).

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).

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Avoid dispersal of spilled material and runoff and

Section 6. Accidental release measures

100 mM dNTP Mix (25 mM each dNTP)

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).

Methods and materials for containment and cleaning up

Methods for cleaning up : RNase-Free Water

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

AffinityScript Multiple Temperature Reverse Transcriptase

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 AffinityScript 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.

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 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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	:	RNase-Free Water	Put on appropriate personal protective equipment (see Section 8).
		AffinityScript Multiple Temperature Reverse Transcriptase	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 AffinityScript 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.
		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 dNTP Mix (25 mM each dNTP)	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.
	AffinityScript Multiple Temperature Reverse Transcriptase	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 AffinityScript 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 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

Section 7. Handling and storage

<p>Random Primers</p>	<p>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>100 mM dNTP Mix (25 mM each dNTP)</p>	<p>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>Conditions for safe storage, including any incompatibilities : RNase-Free Water</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>AffinityScript Multiple Temperature Reverse Transcriptase</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>10X AffinityScript RT buffer</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>RNase Block</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</p>

Section 7. Handling and storage

Oligo(dT) Primer

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.

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 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.

Section 8. Exposure controls/personal protection

[Control parameters](#)

[Occupational exposure limits](#)

Ingredient name	Exposure limits
AffinityScript Multiple Temperature Reverse Transcriptase Glycerol RNase Block	CA Alberta Provincial (Canada, 3/2023). OEL: 10 mg/m ³ 8 hours. Form: Mist CA Quebec Provincial (Canada, 9/2023). TWAEV: 10 mg/m ³ 8 hours. Form: mist CA Saskatchewan Provincial (Canada, 4/2021). STEL: 20 mg/m ³ 15 minutes. Form: mist TWA: 10 mg/m ³ 8 hours. Form: mist CA British Columbia Provincial (Canada, 8/2023). TWA: 3 mg/m ³ 8 hours. Form: respirable mist TWA: 10 mg/m ³ 8 hours. Form: total mist

Section 8. Exposure controls/personal protection

Glycerol	<p>CA Alberta Provincial (Canada, 3/2023). OEL: 10 mg/m³ 8 hours. Form: Mist</p> <p>CA Quebec Provincial (Canada, 9/2023). TWAEV: 10 mg/m³ 8 hours. Form: mist</p> <p>CA Saskatchewan Provincial (Canada, 4/2021). STEL: 20 mg/m³ 15 minutes. Form: mist TWA: 10 mg/m³ 8 hours. Form: mist</p> <p>CA British Columbia Provincial (Canada, 8/2023). TWA: 3 mg/m³ 8 hours. Form: respirable mist TWA: 10 mg/m³ 8 hours. Form: total mist</p>
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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.
- 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.
		AffinityScript Multiple	Liquid.
		Temperature Reverse Transcriptase	
		10X AffinityScript RT buffer	Liquid.
		RNase Block	Liquid.
		Oligo(dT) Primer	Liquid.
		Random Primers	Liquid.
		100 mM dNTP Mix (25 mM each dNTP)	Liquid.
Color	:	RNase-Free Water	Colorless.
		AffinityScript Multiple	Not available.
		Temperature Reverse Transcriptase	
		10X AffinityScript RT buffer	Not available.
		RNase Block	Not available.
		Oligo(dT) Primer	Not available.
		Random Primers	Not available.
		100 mM dNTP Mix (25 mM each dNTP)	Not available.
Odor	:	RNase-Free Water	Odorless.
		AffinityScript Multiple	Not available.
		Temperature Reverse Transcriptase	
		10X AffinityScript RT buffer	Not available.
		RNase Block	Not available.
		Oligo(dT) Primer	Not available.
		Random Primers	Not available.
		100 mM dNTP Mix (25 mM each dNTP)	Not available.
Odor threshold	:	RNase-Free Water	Not available.
		AffinityScript Multiple	Not available.
		Temperature Reverse Transcriptase	
		10X AffinityScript RT buffer	Not available.
		RNase Block	Not available.
		Oligo(dT) Primer	Not available.
		Random Primers	Not available.
		100 mM dNTP Mix (25 mM each dNTP)	Not available.
pH	:	RNase-Free Water	7
		AffinityScript Multiple	8
		Temperature Reverse Transcriptase	
		10X AffinityScript RT buffer	8.3
		RNase Block	7.6
		Oligo(dT) Primer	7.5
		Random Primers	7.5
		100 mM dNTP Mix (25 mM each dNTP)	7.5

Section 9. Physical and chemical properties and safety characteristics

Melting point/freezing point :

RNase-Free Water	0°C (32°F)
AffinityScript Multiple Temperature Reverse Transcriptase	Not available.
10X AffinityScript RT buffer	Not available.
RNase Block	Not available.
Oligo(dT) Primer	0°C (32°F)
Random Primers	0°C (32°F)
100 mM dNTP Mix (25 mM each dNTP)	Not available.

Boiling point, initial boiling point, and boiling range :

RNase-Free Water	100°C (212°F)
AffinityScript Multiple Temperature Reverse Transcriptase	Not available.
10X AffinityScript RT buffer	Not available.
RNase Block	Not available.
Oligo(dT) Primer	100°C (212°F)
Random Primers	100°C (212°F)
100 mM dNTP Mix (25 mM each dNTP)	Not available.

Flash point :

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
AffinityScript Multiple Temperature Reverse Transcriptase						
Glycerol	-	-	-	177	350.6	-
RNase Block						
Glycerol	-	-	-	177	350.6	-

Evaporation rate :

RNase-Free Water	Not available.
AffinityScript Multiple Temperature Reverse Transcriptase	Not available.
10X AffinityScript RT buffer	Not available.
RNase Block	Not available.
Oligo(dT) Primer	Not available.
Random Primers	Not available.
100 mM dNTP Mix (25 mM each dNTP)	Not available.

Flammability :

RNase-Free Water	Not applicable.
AffinityScript Multiple Temperature Reverse Transcriptase	Not applicable.
10X AffinityScript RT buffer	Not applicable.
RNase Block	Not applicable.
Oligo(dT) Primer	Not applicable.
Random Primers	Not applicable.
100 mM dNTP Mix (25 mM each dNTP)	Not applicable.

Section 9. Physical and chemical properties and safety characteristics

Lower and upper explosion limit/flammability limit : RNase-Free Water Not available.
 AffinityScript Multiple Not available.
 Temperature Reverse Transcriptase
 10X AffinityScript RT buffer Not available.
 RNase Block Not available.
 Oligo(dT) Primer Not available.
 Random Primers Not available.
 100 mM dNTP Mix (25 mM each dNTP) Not available.

Vapor pressure : 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
AffinityScript Multiple Temperature Reverse Transcriptase						
water	17.5	2.3	-	92.258	12.3	-
Glycerol	0.000075	0.00001	-	0.0025	0.00033	-
10X AffinityScript RT buffer						
water	17.5	2.3	-	92.258	12.3	-
RNase Block						
water	17.5	2.3	-	92.258	12.3	-
Glycerol	0.000075	0.00001	-	0.0025	0.00033	-
Oligo(dT) Primer						
water	17.5	2.3	-	92.258	12.3	-
Random Primers						
water	17.5	2.3	-	92.258	12.3	-
100 mM dNTP Mix (25 mM each dNTP)						
water	17.5	2.3	-	92.258	12.3	-

Section 9. Physical and chemical properties and safety characteristics

Relative vapor density : RNase-Free Water 0.62 [Air = 1]
 AffinityScript Multiple Not available.
 Temperature Reverse Transcriptase
 10X AffinityScript RT buffer Not available.
 RNase Block Not available.
 Oligo(dT) Primer Not available.
 Random Primers Not available.
 100 mM dNTP Mix (25 mM each dNTP) Not available.

Relative density : RNase-Free Water 1
 AffinityScript Multiple Not available.
 Temperature Reverse Transcriptase
 10X AffinityScript RT buffer Not available.
 RNase Block Not available.
 Oligo(dT) Primer Not available.
 Random Primers Not available.
 100 mM dNTP Mix (25 mM each dNTP) Not available.

Solubility(ies) :

Media	Result
RNase-Free Water	
water	Soluble
AffinityScript Multiple Temperature Reverse Transcriptase	
water	Soluble
10X AffinityScript RT buffer	
water	Soluble
RNase Block	
water	Soluble
Oligo(dT) Primer	
water	Soluble
Random Primers	
water	Soluble
100 mM dNTP Mix (25 mM each dNTP)	
water	Soluble

Partition coefficient: n-octanol/water : RNase-Free Water -1.38
 AffinityScript Multiple Not applicable.
 Temperature Reverse Transcriptase
 10X AffinityScript RT buffer Not applicable.
 RNase Block Not applicable.
 Oligo(dT) Primer Not applicable.
 Random Primers Not applicable.
 100 mM dNTP Mix (25 mM each dNTP) Not applicable.

Auto-ignition temperature :

Ingredient name	°C	°F	Method
AffinityScript Multiple Temperature Reverse Transcriptase			
Glycerol	370	698	-
RNase Block			

Section 9. Physical and chemical properties and safety characteristics

	Glycerol	370	698	-
Decomposition temperature	: RNase-Free Water	Not available.		
	AffinityScript Multiple	Not available.		
	Temperature Reverse			
	Transcriptase			
	10X AffinityScript RT buffer	Not available.		
	RNase Block	Not available.		
	Oligo(dT) Primer	Not available.		
	Random Primers	Not available.		
	100 mM dNTP Mix (25 mM each dNTP)	Not available.		
Viscosity	: RNase-Free Water	Not available.		
	AffinityScript Multiple	Not available.		
	Temperature Reverse			
	Transcriptase			
	10X AffinityScript RT buffer	Not available.		
	RNase Block	Not available.		
	Oligo(dT) Primer	Not available.		
	Random Primers	Not available.		
	100 mM dNTP Mix (25 mM each dNTP)	Not available.		
Particle characteristics				
Median particle size	: RNase-Free Water	Not applicable.		
	AffinityScript Multiple	Not applicable.		
	Temperature Reverse			
	Transcriptase			
	10X AffinityScript RT buffer	Not applicable.		
	RNase Block	Not applicable.		
	Oligo(dT) Primer	Not applicable.		
	Random Primers	Not applicable.		
	100 mM dNTP Mix (25 mM each dNTP)	Not applicable.		

Section 10. Stability and reactivity

Reactivity	: RNase-Free Water	No specific test data related to reactivity available for this product or its ingredients.
	AffinityScript Multiple	No specific test data related to reactivity available for this product or its ingredients.
	Temperature Reverse	
	Transcriptase	
	10X AffinityScript 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.
	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 dNTP Mix (25 mM each dNTP)	No specific test data related to reactivity available for this product or its ingredients.

Section 10. Stability and reactivity

Chemical stability	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)	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.
Possibility of hazardous reactions	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)	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.
Conditions to avoid	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
Incompatible materials	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)	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.
Hazardous decomposition products	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 10. Stability and reactivity

RNase Block	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 dNTP Mix (25 mM each dNTP)	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
AffinityScript Multiple Temperature Reverse Transcriptase Glycerol	LD50 Oral	Rat	12600 mg/kg	-
10X AffinityScript RT buffer Potassium chloride	LD50 Oral	Rat	2600 mg/kg	-
RNase Block Glycerol	LD50 Oral	Rat	12600 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
AffinityScript Multiple Temperature Reverse Transcriptase Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
10X AffinityScript RT buffer Potassium chloride	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
RNase Block Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Section 11. Toxicological information

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure

<p>Information on the likely routes of exposure :</p> <p>RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block</p> <p>Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)</p>	<p>Not available. Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.</p> <p>Not available. Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.</p> <p>Not available. Not available. Not available.</p>
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Potential acute health effects

Eye contact

<p>Eye contact :</p> <p>RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)</p>	<p>No known significant effects or critical hazards. Causes eye irritation.</p> <p>No known significant effects or critical hazards. Causes eye irritation.</p> <p>No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.</p>
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Inhalation

<p>Inhalation :</p> <p>RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)</p>	<p>No known significant effects or critical hazards. No known significant effects or critical hazards.</p> <p>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.</p>
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Skin contact

<p>Skin contact :</p> <p>RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)</p>	<p>No known significant effects or critical hazards. No known significant effects or critical hazards.</p> <p>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.</p>
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Section 11. Toxicological information

Ingestion	: RNase-Free Water	No known significant effects or critical hazards.
	AffinityScript Multiple	No known significant effects or critical hazards.
	Temperature Reverse	
	Transcriptase	
	10X AffinityScript RT buffer	No known significant effects or critical hazards.
	RNase Block	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 dNTP Mix (25 mM each dNTP)	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: RNase-Free Water	No specific data.	
	AffinityScript Multiple	Adverse symptoms may include the following:	
	Temperature Reverse		
	Transcriptase		
		10X AffinityScript RT buffer	No specific data.
		RNase Block	Adverse symptoms may include the following:
		irritation	
		watering	
		redness	
		10X AffinityScript RT buffer	No specific data.
		RNase Block	Adverse symptoms may include the following:
		irritation	
		watering	
		redness	
		Oligo(dT) Primer	No specific data.
		Random Primers	No specific data.
		100 mM dNTP Mix (25 mM each dNTP)	No specific data.
Inhalation	: RNase-Free Water	No specific data.	
	AffinityScript Multiple	No specific data.	
	Temperature Reverse		
	Transcriptase		
	10X AffinityScript RT buffer	No specific data.	
	RNase Block	No specific data.	
	Oligo(dT) Primer	No specific data.	
	Random Primers	No specific data.	
	100 mM dNTP Mix (25 mM each dNTP)	No specific data.	
Skin contact	: RNase-Free Water	No specific data.	
	AffinityScript Multiple	No specific data.	
	Temperature Reverse		
	Transcriptase		
	10X AffinityScript RT buffer	No specific data.	
	RNase Block	No specific data.	
	Oligo(dT) Primer	No specific data.	
	Random Primers	No specific data.	
	100 mM dNTP Mix (25 mM each dNTP)	No specific data.	
Ingestion	: RNase-Free Water	No specific data.	
	AffinityScript Multiple	No specific data.	
	Temperature Reverse		
	Transcriptase		
	10X AffinityScript RT buffer	No specific data.	
	RNase Block	No specific data.	
	Oligo(dT) Primer	No specific data.	
	Random Primers	No specific data.	
	100 mM dNTP Mix (25 mM each dNTP)	No specific data.	

Section 11. Toxicological information

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 AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)	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	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)	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	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)	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	: RNase-Free Water AffinityScript Multiple Temperature Reverse Transcriptase 10X AffinityScript RT buffer RNase Block Oligo(dT) Primer Random Primers 100 mM dNTP Mix (25 mM each dNTP)	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

Section 11. Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
AffinityScript Multiple Temperature Reverse Transcriptase Glycerol	12600	N/A	N/A	N/A	N/A
10X AffinityScript RT buffer 10X AffinityScript RT buffer Potassium chloride	46428.6 2600	N/A N/A	N/A N/A	N/A N/A	N/A N/A
RNase Block Glycerol	12600	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
AffinityScript Multiple Temperature Reverse Transcriptase Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
10X AffinityScript RT buffer 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
RNase Block Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
AffinityScript Multiple Temperature Reverse Transcriptase Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
RNase Block Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
RNase-Free Water water	-	-	Readily
10X AffinityScript RT buffer Potassium chloride	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
RNase-Free Water water	-1.38	-	Low
AffinityScript Multiple Temperature Reverse Transcriptase Glycerol	-1.76	-	Low
10X AffinityScript RT buffer Potassium chloride	-0.46	-	Low
RNase Block Glycerol	-1.76	-	Low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : 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 : 05/22/2024

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
AffinityScript Multiple Temperature Reverse Transcriptase 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

Section 16. Other information

Disclaimer: The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.