

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 Australia Pty Ltd
679 Springvale Road
Mulgrave
Victoria 3170, Australia
1800 802 402

Emergency telephone number (with hours of operation) : CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture

AffinityScript Multiple Temperature Reverse Transcriptase
H320

SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B

RNase Block
H320

SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B

100 mM dNTP Mix (25 mM each dNTP) Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 5.7%

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.

Section 2. Hazard(s) identification

	Random Primers	No signal word.
	100 mM dNTP Mix (25 mM each dNTP)	No signal word.
Hazard statements	: RNase-Free Water	No known significant effects or critical hazards.
	AffinityScript Multiple Temperature Reverse Transcriptase	H320 - Causes eye irritation.
	10X AffinityScript RT buffer	No known significant effects or critical hazards.
	RNase Block	H320 - Causes eye irritation.
	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.
Precautionary statements		
Prevention	: 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.
Response	: RNase-Free Water	Not applicable.
	AffinityScript Multiple Temperature Reverse Transcriptase	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.
	10X AffinityScript RT buffer	Not applicable.
	RNase Block	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.
	Oligo(dT) Primer	Not applicable.
	Random Primers	Not applicable.
	100 mM dNTP Mix (25 mM each dNTP)	Not applicable.
Storage	: 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.
Disposal	: 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.

Supplemental label elements

Section 2. Hazard(s) identification

Additional warning phrases :

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.

Other hazards which do not result in classification :

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.

Section 3. Composition and ingredient information

Substance/mixture :

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

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
RNase-Free Water water	100	7732-18-5
AffinityScript Multiple Temperature Reverse Transcriptase Glycerol	≥30 - ≤60	56-81-5
RNase Block Glycerol	≥30 - ≤60	56-81-5

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.

The total concentration of ingredients in this product, reported or not in this section, is 100%.

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 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.

Section 4. First aid measures

	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
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 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

Section 4. First aid measures

	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 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.
Skin 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. 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

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.	

Over-exposure signs/symptoms

Eye contact	:	RNase-Free Water	No specific data.
		AffinityScript Multiple	Adverse symptoms may include the following:
		Temperature Reverse Transcriptase	

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.

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

Section 4. First aid measures

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 10X AffinityScript RT buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. 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 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 treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment.
Protection of first-aiders	: 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 action shall be taken involving any personal risk or without suitable training. 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. No action shall be taken involving any personal risk or without suitable training. 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. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Firefighting 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.
100 mM dNTP Mix (25 mM each dNTP)	Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media

: 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: 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.

Section 5. Firefighting measures

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 (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 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 spilt 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 spilt material. Avoid breathing vapour 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 spilt 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 spilt material. Avoid breathing vapour 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 spilt 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 spilt 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 areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
For emergency responders	: RNase-Free Water	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	AffinityScript Multiple Temperature Reverse Transcriptase	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	10X AffinityScript RT buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	RNase Block	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the

Section 6. Accidental release measures

Oligo(dT) Primer	information in "For non-emergency personnel". If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Random Primers	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
100 mM dNTP Mix (25 mM each dNTP)	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : RNase-Free Water	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
AffinityScript Multiple Temperature Reverse Transcriptase	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
10X AffinityScript RT buffer	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
RNase Block	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Oligo(dT) Primer	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Random Primers	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
100 mM dNTP Mix (25 mM each dNTP)	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

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

Section 6. Accidental release measures

10X AffinityScript RT buffer	disposal contractor. Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
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 vapour 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 vapour 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).

Section 7. Handling and storage

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 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 dNTP Mix (25 mM each dNTP)

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

AffinityScript Multiple Temperature Reverse

Store in accordance with local regulations. Store in original container protected from direct sunlight in a

Section 7. Handling and storage

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

[Control parameters](#)

[Occupational exposure limits](#)

Ingredient name	Exposure limits
AffinityScript Multiple Temperature Reverse Transcriptase Glycerol	Safe Work Australia (Australia, 10/2022). TWA: 10 mg/m ³ 8 hours.
RNase Block Glycerol	Safe Work Australia (Australia, 10/2022). TWA: 10 mg/m ³ 8 hours.

[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.
Colour	: RNase-Free Water	Colourless.
	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.
Odour	: RNase-Free Water	Odourless.
	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.
Odour 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 Not available.
 Temperature Reverse Transcriptase
 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 Not available.
 Temperature Reverse Transcriptase
 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 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.

Flammability : 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 9. Physical and chemical properties and safety characteristics

Lower and upper explosion limit/flammability limit : 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.

Vapour 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	Vapour Pressure at 20°C			Vapour 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 vapour density :

RNase-Free Water	0.62 [Air = 1]
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.

Relative density :

RNase-Free Water	1
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.

Solubility(ies) :

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

Partition coefficient: n-octanol/water :

RNase-Free Water	-1.38
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.

Auto-ignition temperature :

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

Section 9. Physical and chemical properties and safety characteristics

Decomposition temperature	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.

Viscosity	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.

Particle characteristics

Median particle size	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 10. Stability and reactivity

Reactivity	RNase-Free Water	No specific test data related to reactivity available for this product or its ingredients.
	AffinityScript Multiple Temperature Reverse Transcriptase	No specific test data related to reactivity available for this product or its ingredients.
	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.

Chemical stability	RNase-Free Water	The product is stable.
	AffinityScript Multiple Temperature Reverse Transcriptase	The product is stable.
	10X AffinityScript RT buffer	The product is stable.
	RNase Block	The product is stable.
	Oligo(dT) Primer	The product is stable.
	Random Primers	The product is stable.
	100 mM dNTP Mix (25 mM each dNTP)	The product is stable.

Section 10. Stability and reactivity

Possibility of hazardous reactions	<p>: RNase-Free Water</p> <p>AffinityScript Multiple Temperature Reverse Transcriptase</p> <p>10X AffinityScript RT buffer</p> <p>RNase Block</p> <p>Oligo(dT) Primer</p> <p>Random Primers</p> <p>100 mM dNTP Mix (25 mM each dNTP)</p>	<p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p>
Conditions to avoid	<p>: RNase-Free Water</p> <p>AffinityScript Multiple Temperature Reverse Transcriptase</p> <p>10X AffinityScript RT buffer</p> <p>RNase Block</p> <p>Oligo(dT) Primer</p> <p>Random Primers</p> <p>100 mM dNTP Mix (25 mM each dNTP)</p>	<p>No specific data.</p> <p>No specific data.</p> <p>No specific data.</p> <p>No specific data.</p> <p>No specific data.</p> <p>No specific data.</p> <p>No specific data.</p>
Incompatible materials	<p>: RNase-Free Water</p> <p>AffinityScript Multiple Temperature Reverse Transcriptase</p> <p>10X AffinityScript RT buffer</p> <p>RNase Block</p> <p>Oligo(dT) Primer</p> <p>Random Primers</p> <p>100 mM dNTP Mix (25 mM each dNTP)</p>	<p>May react or be incompatible with oxidising materials.</p> <p>May react or be incompatible with oxidising materials.</p> <p>May react or be incompatible with oxidising materials.</p> <p>May react or be incompatible with oxidising materials.</p> <p>May react or be incompatible with oxidising materials.</p> <p>May react or be incompatible with oxidising materials.</p> <p>May react or be incompatible with oxidising materials.</p>
Hazardous decomposition products	<p>: RNase-Free Water</p> <p>AffinityScript Multiple Temperature Reverse Transcriptase</p> <p>10X AffinityScript RT buffer</p> <p>RNase Block</p> <p>Oligo(dT) Primer</p> <p>Random Primers</p> <p>100 mM dNTP Mix (25 mM each dNTP)</p>	<p>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</p> <p>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</p> <p>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</p> <p>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</p> <p>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</p> <p>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</p> <p>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</p>

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	-
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	-
RNase Block Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

Sensitisation

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

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

Section 11. Toxicological information

each dNTP)

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. 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.
Inhalation	: 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.
Skin 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. 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.
Ingestion	: 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.

Symptoms related to the physical, chemical and toxicological characteristics

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 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.
--------------------	--	---

Section 11. Toxicological information

Inhalation	:	<input checked="" type="checkbox"/> 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	:	<input checked="" type="checkbox"/> 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	:	<input checked="" type="checkbox"/> 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.

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

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	:	<input checked="" type="checkbox"/> 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.		
		Carcinogenicity	:	<input checked="" type="checkbox"/> 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.		

Section 11. Toxicological information

	100 mM dNTP Mix (25 mM each dNTP)	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.
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

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
AffinityScript Multiple Temperature Reverse Transcriptase Glycerol	12600	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
RNase Block Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours

Persistence and degradability

Section 12. Ecological information

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	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
RNase-Free Water water	-	-	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
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 minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

ADG / IMDG / IATA : Not regulated as Dangerous Goods according to the ADG Code .

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

Standard for the Uniform Scheduling of Medicines and Poisons

Not regulated.

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : Not determined.

New Zealand : All components are listed or exempted.

United States : All components are active or exempted.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 22/05/2024

Date of previous issue : 24/05/2021

Version : 7

Key to abbreviations

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

Section 16. Any other relevant information

[Procedure used to derive the classification](#)

Classification	Justification
✓ AffinityScript Multiple Temperature Reverse Transcriptase SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B	Calculation method
RNase Block SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B	Calculation method

✓ Indicates information that has changed from previously issued version.

[Notice to reader](#)

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.