

SAFETY DATA SHEET



AffinityScript Multiple Temperature cDNA Synthesis Kit, Part Number 200436

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

1.1 Product identifier

Product name	: AffinityScript Multiple Temperature cDNA Synthesis Kit, Part Number 200436
Part No. (Kit)	: 200436
Part No.	: RNase-free Water 600164-58
	AffinityScript Multiple 200436-60
	Temperature Reverse Transcriptase
	10X AffinityScript RT 200420-54
	buffer
	RNase Block 200820-56
	Oligo(dT) primer 200820-52
	Random primers 200420-53
	100 mM dNTP Mix (25 mM each dNTP) 200820-55

1.2 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

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

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

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition	: RNase-free Water	Mono-constituent substance
	AffinityScript Multiple	Mixture
	Temperature Reverse Transcriptase	
	10X AffinityScript RT	Mixture
	buffer	
	RNase Block	Mixture
	Oligo(dT) primer	Mixture
	Random primers	Mixture

Date of issue/Date of revision : 27/10/2016

SECTION 2: Hazards identification

100 mM dNTP Mix (25 mM each dNTP) Mixture

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

Not classified.

Ingredients of unknown toxicity : 100 mM dNTP Mix (25 mM each dNTP) Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 5.7%

Ingredients of unknown ecotoxicity : 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%

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Signal word : RNase-free Water No signal word.
 AffinityScript Multiple No signal word.
 Temperature Reverse Transcriptase
 10X AffinityScript RT buffer No signal word.
 RNase Block No signal word.
 Oligo(dT) primer No signal word.
 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 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.

Precautionary statements

Prevention : 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.

Response : 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 2: Hazards identification

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. Not applicable.
Hazardous ingredients	: 10X AffinityScript RT buffer	Not applicable.
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)	Not applicable. Not applicable. Safety data sheet available on request. Not applicable. Not applicable. Not applicable. Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: 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.
<u>Special packaging requirements</u>		
Tactile warning of danger	: 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.

2.3 Other hazards

SECTION 2: Hazards identification

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/information on ingredients

3.1 Substances :

RNase-free Water	Mono-constituent 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

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
RNase-free Water Water	EC: 231-791-2 CAS: 7732-18-5	100	Not classified.	[A]
AffinityScript Multiple Temperature Reverse Transcriptase Glycerol	EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified.	[2]
10X AffinityScript RT buffer 2-Amino-2-(hydroxymethyl) propane-1,3-diol hydrochloride	EC: 214-684-5 CAS: 1185-53-1	<10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	[1]
RNase Block Glycerol	EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified. See Section 16 for the full text of the H statements declared above.	[2]

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

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [A] Constituent
- [B] Impurity
- [C] Stabilising additive

SECTION 4: First aid measures**4.1 Description of 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. Get medical attention if irritation occurs.
	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. Get medical attention if irritation occurs.
	Oligo(dT) primer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Random primers	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	100 mM 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. Get medical attention if symptoms occur.
	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. Get medical attention if symptoms occur.
	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.
	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.
	Oligo(dT) primer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if

SECTION 4: First aid measures

	Random primers	symptoms occur. 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. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 victim to fresh air and keep at rest in a position comfortable for breathing. 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.
	10X AffinityScript RT buffer	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	Oligo(dT) primer	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Protection of first-aiders	: 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.
	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.
	Oligo(dT) primer	No action shall be taken involving any personal risk or without suitable training.
	Random primers	No action shall be taken involving any personal risk or without suitable training.
	100 mM dNTP Mix (25 mM each dNTP)	No action shall be taken involving any personal risk or without suitable training.

SECTION 4: First aid measures**4.2 Most important symptoms and effects, both acute and delayed****Potential acute health effects**

Eye contact	:	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	No known significant effects or critical hazards.
		buffer	
		RNase Block	No known significant effects or critical hazards.
Inhalation	:	Oligo(dT) primer	No known significant effects or critical hazards.
		Random primers	No known significant effects or critical hazards.
		100 mM dNTP Mix (25	No known significant effects or critical hazards.
		mM each dNTP)	
		RNase-free Water	No known significant effects or critical hazards.
		AffinityScript Multiple	No known significant effects or critical hazards.
		Temperature Reverse	
Skin contact	:	Transcriptase	No known significant effects or critical hazards.
		10X AffinityScript RT	No known significant effects or critical hazards.
		buffer	
		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	No known significant effects or critical hazards.
Ingestion	:	mM each dNTP)	
		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	No known significant effects or critical hazards.
		buffer	
	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	No known significant effects or critical hazards.	
	mM each dNTP)		

Over-exposure signs/symptoms

Eye contact	:	RNase-free Water	No specific data.
		AffinityScript Multiple	No specific data.
		Temperature Reverse	
		Transcriptase	
		10X AffinityScript RT	No specific data.
		buffer	
		RNase Block	No specific data.
	Oligo(dT) primer	No specific data.	
	Random primers	No specific data.	
	100 mM dNTP Mix (25	No specific data.	
	mM each dNTP)		

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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 specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
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 specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
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 specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: 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)	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. 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. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. 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.
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.

SECTION 4: First aid measures

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: 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)	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: 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.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or 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)	In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	: 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. Decomposition products may include the following materials: carbon dioxide carbon monoxide Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide No specific data. No specific data. Decomposition products may include the following materials:

SECTION 5: Firefighting measures

carbon dioxide
 carbon monoxide
 nitrogen oxides
 phosphorus oxides

5.3 Advice for firefighters

Special precautions 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 5: Firefighting measures

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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 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. 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. 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 areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled 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 information in "For non-emergency personnel".

Oligo(dT) primer

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

SECTION 6: Accidental release measures

Random primers	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".
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".

6.2 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).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up

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

SECTION 6: Accidental release measures

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

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

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures	: 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).
	10X AffinityScript RT buffer	Put on appropriate personal protective equipment (see Section 8).
	RNase Block	Put on appropriate personal protective equipment (see Section 8).
	Oligo(dT) primer	Put on appropriate personal protective equipment (see Section 8).
	Random primers	Put on appropriate personal protective equipment (see Section 8).
	100 mM 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 contaminated clothing and protective equipment before entering eating areas. See also

SECTION 7: Handling and storage

Random primers	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.
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.

7.2 Conditions for safe storage, including any incompatibilities**Storage**

: RNase-free Water	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
AffinityScript Multiple Temperature Reverse Transcriptase	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.
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.
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.
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.
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 7: Handling and storage

100 mM dNTP Mix (25 mM each dNTP)

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.

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.

7.3 Specific end use(s)

Recommendations

: RNase-free Water	Industrial applications, Professional applications.
AffinityScript Multiple Temperature Reverse Transcriptase	Industrial applications, Professional applications.
10X AffinityScript RT buffer	Industrial applications, Professional applications.
RNase Block	Industrial applications, Professional applications.
Oligo(dT) primer	Industrial applications, Professional applications.
Random primers	Industrial applications, Professional applications.
100 mM dNTP Mix (25 mM each dNTP)	Industrial applications, Professional applications.

Industrial sector specific solutions

: 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 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
AffinityScript Multiple Temperature Reverse Transcriptase Glycerol	EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m ³ 8 hours. Form: Mist
RNase Block Glycerol	EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m ³ 8 hours. Form: Mist

Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of

SECTION 8: Exposure controls/personal protection

exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

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

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

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.

SECTION 9: Physical and chemical properties

Colour	:	RNase-free Water	Colourless.
		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.
Odour	:	RNase-free Water	Odourless.
		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.
Odour threshold	:	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.
pH	:	RNase-free Water	7
		AffinityScript Multiple Temperature Reverse Transcriptase	8
		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
Melting point/freezing point	:	RNase-free Water	0°C
		AffinityScript Multiple Temperature Reverse Transcriptase	Not available.
		10X AffinityScript RT buffer	Not available.
		RNase Block	Not available.
		Oligo(dT) primer	0°C
		Random primers	0°C
		100 mM dNTP Mix (25 mM each dNTP)	Not available.
Initial boiling point and boiling range	:	RNase-free Water	100°C
		AffinityScript Multiple Temperature Reverse Transcriptase	Not available.
		10X AffinityScript RT buffer	Not available.
		RNase Block	Not available.
		Oligo(dT) primer	100°C

SECTION 9: Physical and chemical properties

	Random primers	100°C
	100 mM dNTP Mix (25 mM each dNTP)	Not available.
Flash point	: 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.
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 (solid, gas)	: 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.
Upper/lower flammability or explosive limits	: 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	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.

SECTION 9: Physical and chemical properties

Vapour density	:	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 available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Relative density	:	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 available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Solubility(ies)	:	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)	Easily soluble in the following materials: cold water and hot water. Soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n- octanol/water	:	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 available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Auto-ignition temperature	:	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 available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.

SECTION 9: Physical and chemical properties

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.
Explosive properties	: 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.
Oxidising properties	: 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.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 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.

SECTION 10: Stability and reactivity

100 mM dNTP Mix (25 mM each dNTP) No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

: RNase-free Water The product is stable.
 AffinityScript Multiple The product is stable.
 Temperature Reverse
 Transcriptase
 10X AffinityScript RT The product is stable.
 buffer
 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.

10.3 Possibility of hazardous reactions

: RNase-free Water Under normal conditions of storage and use, hazardous reactions will not occur.
 AffinityScript Multiple Under normal conditions of storage and use, hazardous reactions will not occur.
 Temperature Reverse
 Transcriptase
 10X AffinityScript RT Under normal conditions of storage and use, hazardous reactions will not occur.
 buffer
 RNase Block Under normal conditions of storage and use, hazardous reactions will not occur.
 Oligo(dT) primer Under normal conditions of storage and use, hazardous reactions will not occur.
 Random primers Under normal conditions of storage and use, hazardous reactions will not occur.
 100 mM dNTP Mix (25 mM each dNTP) Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

: RNase-free Water No specific data.
 AffinityScript Multiple No specific data.
 Temperature Reverse
 Transcriptase
 10X AffinityScript RT No specific data.
 buffer
 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.

10.5 Incompatible materials

: RNase-free Water May react or be incompatible with oxidising materials.
 AffinityScript Multiple May react or be incompatible with oxidising materials.
 Temperature Reverse
 Transcriptase
 10X AffinityScript RT May react or be incompatible with oxidising materials.
 buffer
 RNase Block May react or be incompatible with oxidising materials.
 Oligo(dT) primer May react or be incompatible with oxidising materials.
 Random primers May react or be incompatible with oxidising materials.
 100 mM dNTP Mix (25 mM each dNTP) May react or be incompatible with oxidising materials.

SECTION 10: Stability and reactivity

10.6 Hazardous decomposition products	: RNase-free Water	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	AffinityScript Multiple Temperature Reverse Transcriptase	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	10X AffinityScript RT buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	RNase Block	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	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

11.1 Information on toxicological effects

Acute toxicity

Not available.

Acute toxicity estimates

Not available.

Irritation/Corrosion

Conclusion/Summary : Not available.

Sensitiser

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
10X AffinityScript RT buffer 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	Category 3	Not applicable.	Respiratory tract irritation

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.
10X AffinityScript RT buffer	Routes of entry anticipated: Oral, Dermal, Inhalation.
RNase Block	Routes of entry anticipated: Dermal.
Oligo(dT) primer	Not available.
Random primers	Not available.
100 mM dNTP Mix (25 mM each dNTP)	Not available.

Potential acute health effects

Inhalation	: RNase-free Water	No known significant effects or critical hazards.
	AffinityScript Multiple Temperature Reverse Transcriptase	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.

SECTION 11: Toxicological information

	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	No known significant effects or critical hazards.
	AffinityScript Multiple Temperature Reverse Transcriptase	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.
Skin contact	: RNase-free Water	No known significant effects or critical hazards.
	AffinityScript Multiple Temperature Reverse Transcriptase	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.
Eye contact	: RNase-free Water	No known significant effects or critical hazards.
	AffinityScript Multiple Temperature Reverse Transcriptase	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.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: 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.
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.

SECTION 11: Toxicological information

Skin contact	: RNase-free Water	No specific data.
	AffinityScript Multiple	No specific data.
	Temperature Reverse	
	Transcriptase	
	10X AffinityScript RT	No specific data.
	buffer	
	RNase Block	No specific data.
	Oligo(dT) primer	No specific data.
	Random primers	No specific data.
	100 mM dNTP Mix (25	No specific data.
	mM each dNTP)	
Eye contact	: RNase-free Water	No specific data.
	AffinityScript Multiple	No specific data.
	Temperature Reverse	
	Transcriptase	
	10X AffinityScript RT	No specific data.
	buffer	
	RNase Block	No specific data.
	Oligo(dT) primer	No specific data.
	Random primers	No specific data.
	100 mM dNTP Mix (25	No specific data.
	mM each dNTP)	

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	: 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	No known significant effects or critical hazards.
	buffer	
	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	No known significant effects or critical hazards.
	mM each dNTP)	
Carcinogenicity	: 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	No known significant effects or critical hazards.
	buffer	
	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	No known significant effects or critical hazards.
	mM each dNTP)	

SECTION 11: Toxicological information

Mutagenicity	:	RNase-free Water	No known significant effects or critical hazards.
		AffinityScript Multiple Temperature Reverse Transcriptase	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.
Teratogenicity	:	RNase-free Water	No known significant effects or critical hazards.
		AffinityScript Multiple Temperature Reverse Transcriptase	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.
Developmental effects	:	RNase-free Water	No known significant effects or critical hazards.
		AffinityScript Multiple Temperature Reverse Transcriptase	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.
Fertility effects	:	RNase-free Water	No known significant effects or critical hazards.
		AffinityScript Multiple Temperature Reverse Transcriptase	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.

SECTION 12: Ecological information

12.1 Toxicity

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
RNase-free Water Water	-	100 % - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
RNase-free Water Water	-	-	Readily

12.3 Bioaccumulative potential

Date of issue/Date of revision : 27/10/2016

SECTION 12: Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
RNase-free Water Water	-1.38	-	low

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

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

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

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

Regulatory information

ADR/RID / IMDG / IATA : Not regulated.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

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SECTION 15: Regulatory information

None of the components are listed.

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

Other EU regulations

Europe inventory : All components are listed or exempted.

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

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.

International lists

National inventory

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

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

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Not classified.	

Full text of abbreviated H statements

10X AffinityScript RT buffer H315 H319 H335	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.
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Full text of classifications [CLP/GHS]

10X AffinityScript RT buffer Eye Irrit. 2, H319 Skin Irrit. 2, H315 STOT SE 3, H335	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3
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Date of issue/ Date of revision : 27/10/2016

Date of previous issue : No previous validation.

Version : 1

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