

SAFETY DATA SHEET



AffinityScript QPCR cDNA Synthesis Kit, Part Number 600559

Section 1. Identification

Product identifier : AffinityScript QPCR cDNA Synthesis Kit, Part Number 600559
Part no. (chemical kit) : 600559
Part no. : RNase-Free Water 600164-58
 2X cDNA Synthesis Master Mix 600559-51
 AffinityScript RT/RNase Block Enzyme Mixture 600559-52
 Oligo (dT) Primer 600554-53
 Random Primers 600554-54

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

Material uses : Analytical reagent.
 RNase-Free Water 1.2 ml
 2X cDNA Synthesis Master Mix 500 µl
 AffinityScript RT/RNase Block Enzyme Mixture 50 µl
 Oligo (dT) Primer 0.15 ml (15 µg 100 ng/µl)
 Random Primers 0.15 ml (15 µg 100 ng/µl)

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

Not classified.

<input checked="" type="checkbox"/> cDNA Synthesis Master Mix	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10%
AffinityScript RT/RNase Block Enzyme Mixture	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%
<input checked="" type="checkbox"/> cDNA Synthesis Master Mix	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1.6%

GHS label elements

Signal word : RNase-Free Water No signal word.
 2X cDNA Synthesis Master Mix No signal word.
 Mix
 AffinityScript RT/RNase Block Enzyme Mixture No signal word.
 Oligo (dT) Primer No signal word.
 Random Primers No signal word.

Section 2. Hazard(s) identification

Hazard statements	: RNase-Free Water	No known significant effects or critical hazards.
	2X cDNA Synthesis Master Mix	No known significant effects or critical hazards.
	AffinityScript RT/RNase Block Enzyme Mixture	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.

Precautionary statements

Prevention	: RNase-Free Water	Not applicable.
	2X cDNA Synthesis Master Mix	Not applicable.
	AffinityScript RT/RNase Block Enzyme Mixture	Not applicable.
	Oligo (dT) Primer	Not applicable.
	Random Primers	Not applicable.

Response	: RNase-Free Water	Not applicable.
	2X cDNA Synthesis Master Mix	Not applicable.
	AffinityScript RT/RNase Block Enzyme Mixture	Not applicable.
	Oligo (dT) Primer	Not applicable.
	Random Primers	Not applicable.

Storage	: RNase-Free Water	Not applicable.
	2X cDNA Synthesis Master Mix	Not applicable.
	AffinityScript RT/RNase Block Enzyme Mixture	Not applicable.
	Oligo (dT) Primer	Not applicable.
	Random Primers	Not applicable.

Disposal	: RNase-Free Water	Not applicable.
	2X cDNA Synthesis Master Mix	Not applicable.
	AffinityScript RT/RNase Block Enzyme Mixture	Not applicable.
	Oligo (dT) Primer	Not applicable.
	Random Primers	Not applicable.

Supplemental label elements

Additional warning phrases	: RNase-Free Water	Not applicable.
	2X cDNA Synthesis Master Mix	Not applicable.
	AffinityScript RT/RNase Block Enzyme Mixture	Not applicable.
	Oligo (dT) Primer	Not applicable.
	Random Primers	Not applicable.

Other hazards which do not result in classification	: RNase-Free Water	None known.
	2X cDNA Synthesis Master Mix	None known.
	AffinityScript RT/RNase Block Enzyme Mixture	None known.
	Oligo (dT) Primer	None known.
	Random Primers	None known.

Section 3. Composition and ingredient information

Substance/mixture	:	RNase-Free Water	Substance
		2X cDNA Synthesis Master Mix	Mixture
		AffinityScript RT/RNase Block Enzyme Mixture	Mixture
		Oligo (dT) Primer	Mixture
		Random Primers	Mixture

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
RNase-Free Water Water	100	7732-18-5
AffinityScript RT/RNase Block Enzyme Mixture 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 as hazardous to health or the environment and hence require reporting in this section.

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

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	:	RNase-Free Water	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
		2X cDNA Synthesis Master Mix	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 RT/RNase Block Enzyme Mixture	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.
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.
		2X cDNA Synthesis Master Mix	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.
		AffinityScript RT/RNase Block Enzyme Mixture	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

Section 4. First aid measures

Skin contact

: RNase-Free Water

attention if symptoms occur.

2X cDNA Synthesis Master Mix

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

AffinityScript RT/RNase Block Enzyme Mixture

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Oligo (dT) Primer

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Random Primers

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

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.

2X cDNA Synthesis Master Mix

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 RT/RNase Block Enzyme Mixture

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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact

: RNase-Free Water

No known significant effects or critical hazards.

2X cDNA Synthesis Master Mix

No known significant effects or critical hazards.

AffinityScript RT/RNase Block Enzyme Mixture

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 4. First aid measures

Inhalation	:	RNase-Free Water	No known significant effects or critical hazards.
		2X cDNA Synthesis Master Mix	No known significant effects or critical hazards.
		AffinityScript RT/RNase Block Enzyme Mixture	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.
Skin contact	:	RNase-Free Water	No known significant effects or critical hazards.
		2X cDNA Synthesis Master Mix	No known significant effects or critical hazards.
		AffinityScript RT/RNase Block Enzyme Mixture	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.
Ingestion	:	RNase-Free Water	No known significant effects or critical hazards.
		2X cDNA Synthesis Master Mix	No known significant effects or critical hazards.
		AffinityScript RT/RNase Block Enzyme Mixture	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.

Over-exposure signs/symptoms

Eye contact	:	RNase-Free Water	No specific data.
		2X cDNA Synthesis Master Mix	No specific data.
		AffinityScript RT/RNase Block Enzyme Mixture	No specific data.
		Oligo (dT) Primer	No specific data.
		Random Primers	No specific data.
Inhalation	:	RNase-Free Water	No specific data.
		2X cDNA Synthesis Master Mix	No specific data.
		AffinityScript RT/RNase Block Enzyme Mixture	No specific data.
		Oligo (dT) Primer	No specific data.
		Random Primers	No specific data.
Skin contact	:	RNase-Free Water	No specific data.
		2X cDNA Synthesis Master Mix	No specific data.
		AffinityScript RT/RNase Block Enzyme Mixture	No specific data.
		Oligo (dT) Primer	No specific data.
		Random Primers	No specific data.
Ingestion	:	RNase-Free Water	No specific data.
		2X cDNA Synthesis Master Mix	No specific data.
		AffinityScript RT/RNase Block Enzyme Mixture	No specific data.
		Oligo (dT) Primer	No specific data.
		Random Primers	No specific data.

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

Notes to physician	:	RNase-Free Water	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		2X cDNA Synthesis Master Mix	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.
		AffinityScript RT/RNase	Treat symptomatically. Contact poison treatment

Section 4. First aid measures

	Block Enzyme Mixture	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.
Specific treatments	: RNase-Free Water	No specific treatment.
	2X cDNA Synthesis Master Mix	No specific treatment.
	AffinityScript RT/RNase	No specific treatment.
	Block Enzyme Mixture	No specific treatment.
	Oligo (dT) Primer	No specific treatment.
	Random Primers	No specific treatment.
Protection of first-aiders	: RNase-Free Water	No action shall be taken involving any personal risk or without suitable training.
	2X cDNA Synthesis Master Mix	No action shall be taken involving any personal risk or without suitable training.
	AffinityScript RT/RNase	No action shall be taken involving any personal risk or without suitable training.
	Block Enzyme Mixture	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.

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.
	2X cDNA Synthesis Master Mix	Use an extinguishing agent suitable for the surrounding fire.
	AffinityScript RT/RNase	Use an extinguishing agent suitable for the surrounding fire.
	Block Enzyme Mixture	Use an extinguishing agent suitable for the surrounding fire.
	Oligo (dT) Primer	Use an extinguishing agent suitable for the surrounding fire.
	Random Primers	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: RNase-Free Water	None known.
	2X cDNA Synthesis Master Mix	None known.
	AffinityScript RT/RNase	None known.
	Block Enzyme Mixture	None known.
	Oligo (dT) Primer	None known.
	Random Primers	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.
	2X cDNA Synthesis Master Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
	AffinityScript RT/RNase	In a fire or if heated, a pressure increase will occur and the container may burst.
	Block Enzyme Mixture	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.

Section 5. Firefighting measures

Hazardous thermal decomposition products	: RNase-Free Water	No specific data.
	2X cDNA Synthesis Master Mix	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds
	AffinityScript RT/RNase Block Enzyme Mixture	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	Oligo (dT) Primer Random Primers	No specific data. No specific data.
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.
	2X cDNA Synthesis Master Mix	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 RT/RNase Block Enzyme Mixture	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.
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.
	2X cDNA Synthesis Master Mix	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	AffinityScript RT/RNase Block Enzyme Mixture	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.

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.
	2X cDNA Synthesis Master Mix	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 RT/RNase Block Enzyme Mixture	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.
	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.
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".
	2X cDNA Synthesis Master Mix	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 RT/RNase Block Enzyme Mixture	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".
	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".
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).
	2X cDNA Synthesis Master Mix	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).

Section 6. Accidental release measures

AffinityScript RT/RNase Block Enzyme Mixture	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).

Methods and material for containment and cleaning up

Methods for cleaning up : RNase-Free Water

2X cDNA Synthesis Master Mix	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 RT/RNase Block Enzyme Mixture	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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : RNase-Free Water

2X cDNA Synthesis Master Mix	Put on appropriate personal protective equipment (see Section 8).
AffinityScript RT/RNase Block Enzyme Mixture	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).

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.

2X cDNA Synthesis Master Mix

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 RT/RNase Block Enzyme Mixture

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.

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.

2X cDNA Synthesis Master Mix

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 RT/RNase Block Enzyme Mixture

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until

Section 7. Handling and storage

Oligo (dT) Primer

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. 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.

Section 8. Exposure controls and personal protection

[Control parameters](#)

[Occupational exposure limits](#)

Ingredient name	Exposure limits
AffinityScript RT/RNase Block Enzyme Mixture Glycerol	Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m ³ 8 hours.

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: safety glasses with side-shields.

[Skin protection](#)

Section 8. Exposure controls and personal 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.

Section 9. Physical and chemical properties

Appearance

Physical state	: RNase-Free Water	Liquid.
	2X cDNA Synthesis Master Mix	Liquid.
	AffinityScript RT/RNase Block Enzyme Mixture	Liquid.
	Oligo (dT) Primer	Liquid.
	Random Primers	Liquid.
Colour	: RNase-Free Water	Colourless.
	2X cDNA Synthesis Master Mix	Not available.
	AffinityScript RT/RNase Block Enzyme Mixture	Not available.
	Oligo (dT) Primer	Not available.
	Random Primers	Not available.
Odour	: RNase-Free Water	Odourless.
	2X cDNA Synthesis Master Mix	Not available.
	AffinityScript RT/RNase Block Enzyme Mixture	Not available.
	Oligo (dT) Primer	Not available.
	Random Primers	Not available.
Odour threshold	: RNase-Free Water	Not available.
	2X cDNA Synthesis Master Mix	Not available.
	AffinityScript RT/RNase Block Enzyme Mixture	Not available.
	Oligo (dT) Primer	Not available.
	Random Primers	Not available.
pH	: RNase-Free Water	7
	2X cDNA Synthesis Master Mix	8
	AffinityScript RT/RNase Block Enzyme Mixture	8
	Oligo (dT) Primer	7.5
	Random Primers	7.5
Melting point	: RNase-Free Water	0°C (32°F)
	2X cDNA Synthesis Master Mix	0°C (32°F)
	AffinityScript RT/RNase Block Enzyme Mixture	Not available.
	Oligo (dT) Primer	0°C (32°F)
	Random Primers	0°C (32°F)

Section 9. Physical and chemical properties

Boiling point	: RNase-Free Water	100°C (212°F)
	2X cDNA Synthesis Master Mix	100°C (212°F)
	AffinityScript RT/RNase	Not available.
	Block Enzyme Mixture	
	Oligo (dT) Primer	100°C (212°F)
	Random Primers	100°C (212°F)
Flash point	: RNase-Free Water	Not available.
	2X cDNA Synthesis Master Mix	Not available.
	AffinityScript RT/RNase	Not available.
	Block Enzyme Mixture	
	Oligo (dT) Primer	Not available.
	Random Primers	Not available.
Evaporation rate	: RNase-Free Water	Not available.
	2X cDNA Synthesis Master Mix	Not available.
	AffinityScript RT/RNase	Not available.
	Block Enzyme Mixture	
	Oligo (dT) Primer	Not available.
	Random Primers	Not available.
Flammability (solid, gas)	: RNase-Free Water	Not applicable.
	2X cDNA Synthesis Master Mix	Not applicable.
	AffinityScript RT/RNase	Not applicable.
	Block Enzyme Mixture	
	Oligo (dT) Primer	Not applicable.
	Random Primers	Not applicable.
Lower and upper explosive (flammable) limits	: RNase-Free Water	Not available.
	2X cDNA Synthesis Master Mix	Not available.
	AffinityScript RT/RNase	Not available.
	Block Enzyme Mixture	
	Oligo (dT) Primer	Not available.
	Random Primers	Not available.
Vapour pressure	: RNase-Free Water	Not available.
	2X cDNA Synthesis Master Mix	Not available.
	AffinityScript RT/RNase	Not available.
	Block Enzyme Mixture	
	Oligo (dT) Primer	Not available.
	Random Primers	Not available.
Vapour density	: RNase-Free Water	Not available.
	2X cDNA Synthesis Master Mix	Not available.
	AffinityScript RT/RNase	Not available.
	Block Enzyme Mixture	
	Oligo (dT) Primer	Not available.
	Random Primers	Not available.
Relative density	: RNase-Free Water	Not available.
	2X cDNA Synthesis Master Mix	Not available.
	AffinityScript RT/RNase	Not available.
	Block Enzyme Mixture	
	Oligo (dT) Primer	Not available.
	Random Primers	Not available.

Section 9. Physical and chemical properties

Solubility	: RNase-Free Water	Easily soluble in the following materials: cold water and hot water.
	2X cDNA Synthesis Master Mix	Easily soluble in the following materials: cold water and hot water.
	AffinityScript RT/RNase Block Enzyme Mixture	Soluble in the following materials: cold water and hot water.
	Oligo (dT) Primer	Easily soluble in the following materials: cold water and hot water.
	Random Primers	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: RNase-Free Water	Not available.
	2X cDNA Synthesis Master Mix	Not available.
	AffinityScript RT/RNase Block Enzyme Mixture	Not available.
	Oligo (dT) Primer	Not available.
	Random Primers	Not available.
Auto-ignition temperature	: RNase-Free Water	Not available.
	2X cDNA Synthesis Master Mix	Not available.
	AffinityScript RT/RNase Block Enzyme Mixture	Not available.
	Oligo (dT) Primer	Not available.
	Random Primers	Not available.
Decomposition temperature	: RNase-Free Water	Not available.
	2X cDNA Synthesis Master Mix	Not available.
	AffinityScript RT/RNase Block Enzyme Mixture	Not available.
	Oligo (dT) Primer	Not available.
	Random Primers	Not available.
Viscosity	: RNase-Free Water	Not available.
	2X cDNA Synthesis Master Mix	Not available.
	AffinityScript RT/RNase Block Enzyme Mixture	Not available.
	Oligo (dT) Primer	Not available.
	Random Primers	Not available.

Section 10. Stability and reactivity

Reactivity	: RNase-Free Water	No specific test data related to reactivity available for this product or its ingredients.
	2X cDNA Synthesis Master Mix	No specific test data related to reactivity available for this product or its ingredients.
	AffinityScript RT/RNase Block Enzyme Mixture	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.
Chemical stability	: RNase-Free Water	The product is stable.
	2X cDNA Synthesis Master Mix	The product is stable.
	AffinityScript RT/RNase Block Enzyme Mixture	The product is stable.
	Oligo (dT) Primer	The product is stable.
	Random Primers	The product is stable.

Section 10. Stability and reactivity

Possibility of hazardous reactions	: RNase-Free Water	Under normal conditions of storage and use, hazardous reactions will not occur.
	2X cDNA Synthesis Master Mix	Under normal conditions of storage and use, hazardous reactions will not occur.
	AffinityScript RT/RNase Block Enzyme Mixture	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.
Conditions to avoid	: RNase-Free Water	No specific data.
	2X cDNA Synthesis Master Mix	No specific data.
	AffinityScript RT/RNase Block Enzyme Mixture	No specific data.
	Oligo (dT) Primer	No specific data.
	Random Primers	No specific data.
Incompatible materials	: RNase-Free Water	May react or be incompatible with oxidising materials.
	2X cDNA Synthesis Master Mix	May react or be incompatible with oxidising materials.
	AffinityScript RT/RNase Block Enzyme Mixture	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.
Hazardous decomposition products	: RNase-Free Water	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	2X cDNA Synthesis Master Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	AffinityScript RT/RNase Block Enzyme Mixture	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.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
AffinityScript RT/RNase Block Enzyme Mixture Glycerol	LD50 Oral	Rat	12600 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
AffinityScript RT/RNase Block Enzyme Mixture Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Section 11. Toxicological information

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.
	2X cDNA Synthesis Master Mix	Routes of entry anticipated: Oral, Dermal, Inhalation.
	AffinityScript RT/RNase Block Enzyme Mixture	Routes of entry anticipated: Oral, Dermal, Inhalation.
	Oligo (dT) Primer	Not available.
	Random Primers	Not available.

Potential acute health effects

Eye contact	RNase-Free Water	No known significant effects or critical hazards.
	2X cDNA Synthesis Master Mix	No known significant effects or critical hazards.
	AffinityScript RT/RNase Block Enzyme Mixture	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.
Inhalation	RNase-Free Water	No known significant effects or critical hazards.
	2X cDNA Synthesis Master Mix	No known significant effects or critical hazards.
	AffinityScript RT/RNase Block Enzyme Mixture	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.
Skin contact	RNase-Free Water	No known significant effects or critical hazards.
	2X cDNA Synthesis Master Mix	No known significant effects or critical hazards.
	AffinityScript RT/RNase Block Enzyme Mixture	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.
Ingestion	RNase-Free Water	No known significant effects or critical hazards.
	2X cDNA Synthesis Master Mix	No known significant effects or critical hazards.
	AffinityScript RT/RNase Block Enzyme Mixture	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.

Symptoms related to the physical, chemical and toxicological characteristics

Section 11. Toxicological information

Eye contact	: RNase-Free Water	No specific data.
	2X cDNA Synthesis Master Mix	No specific data.
	AffinityScript RT/RNase Block Enzyme Mixture	No specific data.
	Oligo (dT) Primer	No specific data.
	Random Primers	No specific data.
Inhalation	: RNase-Free Water	No specific data.
	2X cDNA Synthesis Master Mix	No specific data.
	AffinityScript RT/RNase Block Enzyme Mixture	No specific data.
	Oligo (dT) Primer	No specific data.
	Random Primers	No specific data.
Skin contact	: RNase-Free Water	No specific data.
	2X cDNA Synthesis Master Mix	No specific data.
	AffinityScript RT/RNase Block Enzyme Mixture	No specific data.
	Oligo (dT) Primer	No specific data.
	Random Primers	No specific data.
Ingestion	: RNase-Free Water	No specific data.
	2X cDNA Synthesis Master Mix	No specific data.
	AffinityScript RT/RNase Block Enzyme Mixture	No specific data.
	Oligo (dT) Primer	No specific data.
	Random Primers	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	: RNase-Free Water	No known significant effects or critical hazards.
	2X cDNA Synthesis Master Mix	No known significant effects or critical hazards.
	AffinityScript RT/RNase Block Enzyme Mixture	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.
Carcinogenicity	: RNase-Free Water	No known significant effects or critical hazards.
	2X cDNA Synthesis Master Mix	No known significant effects or critical hazards.
	AffinityScript RT/RNase Block Enzyme Mixture	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

Mutagenicity	: RNase-Free Water	No known significant effects or critical hazards.
	2X cDNA Synthesis Master Mix	No known significant effects or critical hazards.
	AffinityScript RT/RNase Block Enzyme Mixture	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.
Teratogenicity	: RNase-Free Water	No known significant effects or critical hazards.
	2X cDNA Synthesis Master Mix	No known significant effects or critical hazards.
	AffinityScript RT/RNase Block Enzyme Mixture	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.
Developmental effects	: RNase-Free Water	No known significant effects or critical hazards.
	2X cDNA Synthesis Master Mix	No known significant effects or critical hazards.
	AffinityScript RT/RNase Block Enzyme Mixture	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.
Fertility effects	: RNase-Free Water	No known significant effects or critical hazards.
	2X cDNA Synthesis Master Mix	No known significant effects or critical hazards.
	AffinityScript RT/RNase Block Enzyme Mixture	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.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
RNase-Free Water AffinityScript RT/RNase Block Enzyme Mixture Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
RNase-Free Water Water	-	100 % - 28 days	-	-
AffinityScript RT/RNase Block Enzyme Mixture Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

Section 12. Ecological information

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

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
RT/RNase-Free Water Water	-1.38	-	low
AffinityScript RT/RNase Block Enzyme Mixture 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. 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 Annex II of Marpol and the IBC Code : Not available.

Section 15. Regulatory information

Standard Uniform Schedule of Medicine 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 (Annexes A, B, C, E)

Section 15. Regulatory information

Not listed.

[Stockholm Convention on Persistent Organic Pollutants](#)

Not listed.

[Rotterdam Convention on Prior Informed Consent \(PIC\)](#)

Not listed.

[UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Not listed.

[Inventory list](#)

Australia	: Not determined.
Canada	: All components are listed or exempted.
China	: All components are listed or exempted.
Europe	: All components are listed or exempted.
Japan	: <input checked="" type="checkbox"/> 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.
Thailand	: <input checked="" type="checkbox"/> Not determined.
Turkey	: <input checked="" type="checkbox"/> Not determined.
United States	: All components are listed or exempted.
Viet Nam	: <input checked="" type="checkbox"/> Not determined.

Section 16. Any other relevant information

[History](#)

Date of issue/Date of revision : 26/02/2018

Date of previous issue : 24/11/2015

Version : 4

[Key to abbreviations](#)

: ADG = Australian Dangerous Goods
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)
NOHSC = National Occupational Health and Safety Commission
SUSMP = Standard Uniform Schedule of Medicine and Poisons
UN = United Nations

[Procedure used to derive the classification](#)

Classification	Justification
Not classified.	

References : Not available.

Indicates information that has changed from previously issued version.

[Notice to reader](#)

Section 16. Any other relevant information

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