

SAFETY DATA SHEET



Agilent LowInput QuickAmp Labeling Kit - Two Color, Part Number
5190-2306

Section 1. Identification

Product identifier	: Agilent LowInput QuickAmp Labeling Kit - Two Color, Part Number 5190-2306	
Part No. (Chemical Kit)	: 5190-2306	
Part No.	: <input checked="" type="checkbox"/> Nuclease-Free Water	5190-2328
	T7 Primer	5190-2320
	5X First Strand Buffer	5190-2321
	0.1 M DTT	5190-2322
	10 mM dNTP Mix	5190-2323
	AffinityScript RT RNase Block Mix	5190-2324
	NTP Mix	5190-2326
	5X Transcription Buffer	5190-2325
	T7 RNA Polymerase Blend	5190-2327
	Cyanine-3-CTP	5190-2329
	Cyanine-5-CTP	5190-2330

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

Analytical reagent.

<input checked="" type="checkbox"/> Nuclease-Free Water	250 µl
T7 Primer	24 µl
5X First Strand Buffer	100 µl
0.1 M DTT	70 µl
10 mM dNTP Mix	20 µl
AffinityScript RT RNase Block Mix	36 µl
NTP Mix	35 µl
5X Transcription Buffer	160 µl
T7 RNA Polymerase Blend	10 µl
Cyanine-3-CTP	8 µl
Cyanine-5-CTP	8 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"/> 5X First Strand Buffer	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: > 60%
AffinityScript RT RNase Block Mix	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%
NTP 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%

Section 2. Hazard(s) identification

5X Transcription Buffer	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: 10 - 30% Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10%
T7 RNA Polymerase Blend	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%
NTP Mix	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 4%
5X Transcription Buffer	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1.7%

GHS label elements

Signal word

Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer T7 RNA Polymerase Blend Cyanine-3-CTP Cyanine-5-CTP	No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word.
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Hazard statements

Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer T7 RNA Polymerase Blend Cyanine-3-CTP Cyanine-5-CTP	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
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Precautionary statements

Prevention

Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer T7 RNA Polymerase Blend Cyanine-3-CTP Cyanine-5-CTP	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
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Response

Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer T7 RNA Polymerase Blend	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
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Section 2. Hazard(s) identification

	Cyanine-3-CTP	Not applicable.
	Cyanine-5-CTP	Not applicable.
Storage	: Nuclease-Free Water	Not applicable.
	T7 Primer	Not applicable.
	5X First Strand Buffer	Not applicable.
	0.1 M DTT	Not applicable.
	10 mM dNTP Mix	Not applicable.
	AffinityScript RT RNase	Not applicable.
	Block Mix	
	NTP Mix	Not applicable.
	5X Transcription Buffer	Not applicable.
	T7 RNA Polymerase Blend	Not applicable.
	Cyanine-3-CTP	Not applicable.
	Cyanine-5-CTP	Not applicable.
Disposal	: Nuclease-Free Water	Not applicable.
	T7 Primer	Not applicable.
	5X First Strand Buffer	Not applicable.
	0.1 M DTT	Not applicable.
	10 mM dNTP Mix	Not applicable.
	AffinityScript RT RNase	Not applicable.
	Block Mix	
	NTP Mix	Not applicable.
	5X Transcription Buffer	Not applicable.
	T7 RNA Polymerase Blend	Not applicable.
	Cyanine-3-CTP	Not applicable.
	Cyanine-5-CTP	Not applicable.
Supplemental label elements		
Additional warning phrases	: Nuclease-Free Water	Not applicable.
	T7 Primer	Not applicable.
	5X First Strand Buffer	Not applicable.
	0.1 M DTT	Not applicable.
	10 mM dNTP Mix	Not applicable.
	AffinityScript RT RNase	Not applicable.
	Block Mix	
	NTP Mix	Not applicable.
	5X Transcription Buffer	Not applicable.
	T7 RNA Polymerase Blend	Not applicable.
	Cyanine-3-CTP	Not applicable.
	Cyanine-5-CTP	Not applicable.
Other hazards which do not result in classification	: Nuclease-Free Water	None known.
	T7 Primer	None known.
	5X First Strand Buffer	None known.
	0.1 M DTT	None known.
	10 mM dNTP Mix	None known.
	AffinityScript RT RNase	None known.
	Block Mix	
	NTP Mix	None known.
	5X Transcription Buffer	None known.
	T7 RNA Polymerase Blend	None known.
	Cyanine-3-CTP	None known.
	Cyanine-5-CTP	None known.

Section 3. Composition and ingredient information

Substance/mixture	:	☒ Nuclease-Free Water	Substance
		T7 Primer	Mixture
		5X First Strand Buffer	Mixture
		0.1 M DTT	Mixture
		10 mM dNTP Mix	Mixture
		AffinityScript RT RNase Block Mix	Mixture
		NTP Mix	Mixture
		5X Transcription Buffer	Mixture
		T7 RNA Polymerase Blend	Mixture
		Cyanine-3-CTP	Mixture
		Cyanine-5-CTP	Mixture

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
☒ Nuclease-Free Water Water	100	7732-18-5
AffinityScript RT RNase Block Mix Glycerol	≥30 - ≤60	56-81-5
5X Transcription Buffer Polyethylene glycol	≥10 - ≤30	25322-68-3
T7 RNA Polymerase Blend 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	:	☒ Nuclease-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.
		T7 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.
		5X First Strand 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.
		0.1 M DTT	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
		10 mM dNTP 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 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.
		NTP Mix	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.

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	5X Transcription Buffer	Check for and remove any contact lenses. Get medical attention if irritation occurs. 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.
	T7 RNA Polymerase Blend	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.
	Cyanine-3-CTP	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.
	Cyanine-5-CTP	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	: Nuclease-Free Water	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	T7 Primer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	5X First Strand Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	0.1 M DTT	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	10 mM dNTP Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	AffinityScript RT RNase Block Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	NTP 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.
	5X Transcription 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.
	T7 RNA Polymerase Blend	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Cyanine-3-CTP	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Cyanine-5-CTP	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Section 4. First aid measures

Skin contact	:	Nuclease-Free Water	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.	
		T7 Primer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.	
		5X First Strand Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.	
		0.1 M DTT	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.	
		10 mM dNTP Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.	
		AffinityScript RT RNase Block Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.	
		NTP Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.	
		5X Transcription Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.	
		T7 RNA Polymerase Blend	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.	
		Cyanine-3-CTP	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.	
		Cyanine-5-CTP	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.	
	Ingestion	:	Nuclease-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.
			T7 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.
		5X First Strand 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.	
		0.1 M DTT	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.	
		10 mM dNTP Mix	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for	

Section 4. First aid measures

AffinityScript RT RNase Block Mix	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. 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.
NTP 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.
5X Transcription 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.
T7 RNA Polymerase Blend	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.
Cyanine-3-CTP	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.
Cyanine-5-CTP	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

: Nuclease-Free Water	No known significant effects or critical hazards.
T7 Primer	No known significant effects or critical hazards.
5X First Strand Buffer	No known significant effects or critical hazards.
0.1 M DTT	No known significant effects or critical hazards.
10 mM dNTP Mix	No known significant effects or critical hazards.
AffinityScript RT RNase Block Mix	No known significant effects or critical hazards.
NTP Mix	No known significant effects or critical hazards.
5X Transcription Buffer	No known significant effects or critical hazards.
T7 RNA Polymerase Blend	No known significant effects or critical hazards.
Cyanine-3-CTP	No known significant effects or critical hazards.
Cyanine-5-CTP	No known significant effects or critical hazards.

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Inhalation	: Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer T7 RNA Polymerase Blend Cyanine-3-CTP Cyanine-5-CTP	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer T7 RNA Polymerase Blend Cyanine-3-CTP Cyanine-5-CTP	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer T7 RNA Polymerase Blend Cyanine-3-CTP Cyanine-5-CTP	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer T7 RNA Polymerase Blend Cyanine-3-CTP Cyanine-5-CTP	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. No specific data. No specific data. No specific data.
Inhalation	: Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer T7 RNA Polymerase Blend Cyanine-3-CTP Cyanine-5-CTP	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. No specific data. No specific data. No specific data.

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Skin contact	:	Nuclease-Free Water	No specific data.	
		T7 Primer	No specific data.	
		5X First Strand Buffer	No specific data.	
		0.1 M DTT	No specific data.	
		10 mM dNTP Mix	No specific data.	
		AffinityScript RT RNase	No specific data.	
		Block Mix		
		NTP Mix	No specific data.	
		5X Transcription Buffer	No specific data.	
		T7 RNA Polymerase Blend	No specific data.	
		Cyanine-3-CTP	No specific data.	
		Cyanine-5-CTP	No specific data.	
	Ingestion	:	Nuclease-Free Water	No specific data.
			T7 Primer	No specific data.
		5X First Strand Buffer	No specific data.	
		0.1 M DTT	No specific data.	
		10 mM dNTP Mix	No specific data.	
		AffinityScript RT RNase	No specific data.	
		Block Mix		
		NTP Mix	No specific data.	
		5X Transcription Buffer	No specific data.	
		T7 RNA Polymerase Blend	No specific data.	
		Cyanine-3-CTP	No specific data.	
		Cyanine-5-CTP	No specific data.	

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

Notes to physician	:	Nuclease-Free Water	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		T7 Primer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		5X First Strand Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		0.1 M DTT	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		10 mM dNTP Mix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		AffinityScript RT RNase	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Block Mix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		NTP 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.
		5X Transcription Buffer	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
		T7 RNA Polymerase Blend	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Cyanine-3-CTP	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Cyanine-5-CTP	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Section 4. First aid measures

Specific treatments	: Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer T7 RNA Polymerase Blend Cyanine-3-CTP Cyanine-5-CTP	No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment.
Protection of first-aiders	: Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer T7 RNA Polymerase Blend Cyanine-3-CTP Cyanine-5-CTP	No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media	: Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer T7 RNA Polymerase Blend Cyanine-3-CTP Cyanine-5-CTP	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. 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.
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Section 5. Firefighting measures

Unsuitable extinguishing media	:	☑ Nuclease-Free Water	None known.		
		T7 Primer	None known.		
		5X First Strand Buffer	None known.		
		0.1 M DTT	None known.		
		10 mM dNTP Mix	None known.		
		AffinityScript RT RNase	None known.		
		Block Mix			
		NTP Mix	None known.		
		5X Transcription Buffer	None known.		
		T7 RNA Polymerase Blend	None known.		
		Cyanine-3-CTP	None known.		
		Cyanine-5-CTP	None known.		
		Specific hazards arising from the chemical	:	☑ Nuclease-Free Water	In a fire or if heated, a pressure increase will occur and the container may burst.
				T7 Primer	In a fire or if heated, a pressure increase will occur and the container may burst.
5X First Strand Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.				
0.1 M DTT	In a fire or if heated, a pressure increase will occur and the container may burst.				
10 mM dNTP 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 Mix	In a fire or if heated, a pressure increase will occur and the container may burst.				
NTP Mix	In a fire or if heated, a pressure increase will occur and the container may burst.				
5X Transcription Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.				
T7 RNA Polymerase Blend	In a fire or if heated, a pressure increase will occur and the container may burst.				
Cyanine-3-CTP	In a fire or if heated, a pressure increase will occur and the container may burst.				
Cyanine-5-CTP	In a fire or if heated, a pressure increase will occur and the container may burst.				
Hazardous thermal decomposition products	:			☑ Nuclease-Free Water	No specific data.
				T7 Primer	No specific data.
		5X First Strand Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides		
		0.1 M DTT	No specific data.		
		10 mM dNTP Mix	No specific data.		
		AffinityScript RT RNase	Decomposition products may include the following materials: carbon dioxide carbon monoxide		
		Block Mix	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides		
		NTP Mix	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides		
		5X Transcription Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds		
		T7 RNA Polymerase Blend	Decomposition products may include the following materials:		

Section 5. Firefighting measures

		carbon dioxide
		carbon monoxide
	Cyanine-3-CTP	No specific data.
	Cyanine-5-CTP	No specific data.
Special protective actions for fire-fighters	: RNuclease-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.
	T7 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.
	5X First Strand 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.
	0.1 M DTT	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	10 mM dNTP 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 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.
	NTP 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.
	5X Transcription 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.
	T7 RNA Polymerase Blend	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.
	Cyanine-3-CTP	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.
	Cyanine-5-CTP	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	: RNuclease-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.
	T7 Primer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	5X First Strand Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	0.1 M DTT	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus

Section 5. Firefighting measures

10 mM dNTP Mix	(SCBA) with a full face-piece operated in positive pressure mode. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
AffinityScript RT RNase Block Mix	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
NTP Mix	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
5X Transcription Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
T7 RNA Polymerase Blend	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Cyanine-3-CTP	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Cyanine-5-CTP	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	: <input checked="" type="checkbox"/> Nuclease-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.
	T7 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.
	5X First Strand Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	0.1 M DTT	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	10 mM dNTP 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

Section 6. Accidental release measures

AffinityScript RT RNase Block Mix	protective equipment. 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.
NTP 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.
5X Transcription Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
T7 RNA Polymerase Blend	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.
Cyanine-3-CTP	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.
Cyanine-5-CTP	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 : Nuclease-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".
T7 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".
5X First Strand 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".
0.1 M DTT	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".
10 mM dNTP 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 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".
NTP Mix	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on

Section 6. Accidental release measures

5X Transcription Buffer	suitable and unsuitable materials. See also the information in "For non-emergency personnel". If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
T7 RNA Polymerase Blend	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".
Cyanine-3-CTP	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".
Cyanine-5-CTP	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 : Nuclease-Free Water

T7 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).
5X First Strand 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).
0.1 M DTT	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).
10 mM dNTP 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).
AffinityScript RT RNase Block 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).
NTP 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).
5X Transcription 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).
T7 RNA Polymerase Blend	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,

Section 6. Accidental release measures

Cyanine-3-CTP	soil or air). 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).
Cyanine-5-CTP	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](#) : Nuclease-Free Water

T7 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.
5X First Strand 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.
0.1 M DTT	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.
10 mM dNTP 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 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.
NTP 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.
5X Transcription 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.
T7 RNA Polymerase Blend	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble.

Section 6. Accidental release measures

Cyanine-3-CTP	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. 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.
Cyanine-5-CTP	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	:	☑ Nuclease-Free Water	Put on appropriate personal protective equipment (see Section 8).
		T7 Primer	Put on appropriate personal protective equipment (see Section 8).
		5X First Strand Buffer	Put on appropriate personal protective equipment (see Section 8).
		0.1 M DTT	Put on appropriate personal protective equipment (see Section 8).
		10 mM dNTP Mix	Put on appropriate personal protective equipment (see Section 8).
		AffinityScript RT RNase Block Mix	Put on appropriate personal protective equipment (see Section 8).
		NTP Mix	Put on appropriate personal protective equipment (see Section 8).
		5X Transcription Buffer	Put on appropriate personal protective equipment (see Section 8).
		T7 RNA Polymerase Blend	Put on appropriate personal protective equipment (see Section 8).
		Cyanine-3-CTP	Put on appropriate personal protective equipment (see Section 8).
		Cyanine-5-CTP	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	:	☑ Nuclease-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.
		T7 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.
		5X First Strand 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.

Section 7. Handling and storage

0.1 M DTT	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
10 mM dNTP 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 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.
NTP 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.
5X Transcription 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.
T7 RNA Polymerase Blend	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.
Cyanine-3-CTP	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.
Cyanine-5-CTP	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.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Nuclease-Free Water

T7 Primer	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
5X First Strand Buffer	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
0.1 M DTT	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
10 mM dNTP 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 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

Section 7. Handling and storage

NTP Mix

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.

5X Transcription Buffer

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

T7 RNA Polymerase Blend

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.

Cyanine-3-CTP

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.

Cyanine-5-CTP

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 Mix Glycerol	Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m ³ 8 hours.
5X Transcription Buffer Polyethylene glycol	DFG MAC-values list (Germany, 7/2015). PEAK: 8000 mg/m ³ , 4 times per shift, 15 minutes. Form: Inhalable fraction TWA: 1000 mg/m ³ 8 hours. Form: Inhalable fraction
T7 RNA Polymerase Blend 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**
- 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	:	☑ Nuclease-Free Water	Liquid.
		T7 Primer	Liquid.
		5X First Strand Buffer	Liquid.
		0.1 M DTT	Liquid.
		10 mM dNTP Mix	Liquid.
		AffinityScript RT RNase	Liquid.
		Block Mix	
		NTP Mix	Liquid.
		5X Transcription Buffer	Liquid.
		T7 RNA Polymerase Blend	Liquid.
		Cyanine-3-CTP	Liquid.
		Cyanine-5-CTP	Liquid.
	Colour	:	☑ Nuclease-Free Water
		T7 Primer	Not available.
		5X First Strand Buffer	Not available.
		0.1 M DTT	Not available.
		10 mM dNTP Mix	Not available.
		AffinityScript RT RNase	Not available.
		Block Mix	
		NTP Mix	Not available.
		5X Transcription Buffer	Not available.
		T7 RNA Polymerase Blend	Not available.
		Cyanine-3-CTP	Not available.
		Cyanine-5-CTP	Not available.
Odour		:	☑ Nuclease-Free Water
		T7 Primer	Not available.
		5X First Strand Buffer	Not available.
		0.1 M DTT	Not available.
		10 mM dNTP Mix	Not available.
		AffinityScript RT RNase	Not available.
		Block Mix	
		NTP Mix	Not available.
		5X Transcription Buffer	Not available.
		T7 RNA Polymerase Blend	Not available.
		Cyanine-3-CTP	Not available.
		Cyanine-5-CTP	Not available.
	Odour threshold	:	☑ Nuclease-Free Water
		T7 Primer	Not available.
		5X First Strand Buffer	Not available.
		0.1 M DTT	Not available.
		10 mM dNTP Mix	Not available.
		AffinityScript RT RNase	Not available.
		Block Mix	
		NTP Mix	Not available.
		5X Transcription Buffer	Not available.
		T7 RNA Polymerase Blend	Not available.
		Cyanine-3-CTP	Not available.
		Cyanine-5-CTP	Not available.
pH		:	☑ Nuclease-Free Water
		T7 Primer	Not available.
		5X First Strand Buffer	Not available.
		0.1 M DTT	Not available.
		10 mM dNTP Mix	Not available.
		AffinityScript RT RNase	Not available.
		Block Mix	
		NTP Mix	Not available.
		5X Transcription Buffer	Not available.
		T7 RNA Polymerase Blend	Not available.
		Cyanine-3-CTP	7.6
		Cyanine-5-CTP	7.6

Section 9. Physical and chemical properties

Melting point	: Nuclease-Free Water	0°C (32°F)
	T7 Primer	0°C (32°F)
	5X First Strand Buffer	Not available.
	0.1 M DTT	0°C (32°F)
	10 mM dNTP Mix	0°C (32°F)
	AffinityScript RT RNase	Not available.
	Block Mix	
	NTP Mix	0°C (32°F)
	5X Transcription Buffer	Not available.
	T7 RNA Polymerase Blend	Not available.
	Cyanine-3-CTP	0°C (32°F)
	Cyanine-5-CTP	0°C (32°F)
	Boiling point	: Nuclease-Free Water
T7 Primer		100°C (212°F)
5X First Strand Buffer		Not available.
0.1 M DTT		100°C (212°F)
10 mM dNTP Mix		100°C (212°F)
AffinityScript RT RNase		Not available.
Block Mix		
NTP Mix		100°C (212°F)
5X Transcription Buffer		Not available.
T7 RNA Polymerase Blend		Not available.
Cyanine-3-CTP		100°C (212°F)
Cyanine-5-CTP		100°C (212°F)
Flash point		: Nuclease-Free Water
	T7 Primer	Not available.
	5X First Strand Buffer	Not available.
	0.1 M DTT	Not available.
	10 mM dNTP Mix	Not available.
	AffinityScript RT RNase	Not available.
	Block Mix	
	NTP Mix	Not available.
	5X Transcription Buffer	Not available.
	T7 RNA Polymerase Blend	Not available.
	Cyanine-3-CTP	Not available.
	Cyanine-5-CTP	Not available.
	Evaporation rate	: Nuclease-Free Water
T7 Primer		Not available.
5X First Strand Buffer		Not available.
0.1 M DTT		Not available.
10 mM dNTP Mix		Not available.
AffinityScript RT RNase		Not available.
Block Mix		
NTP Mix		Not available.
5X Transcription Buffer		Not available.
T7 RNA Polymerase Blend		Not available.
Cyanine-3-CTP		Not available.
Cyanine-5-CTP		Not available.
Flammability (solid, gas)		: Nuclease-Free Water
	T7 Primer	Not applicable.
	5X First Strand Buffer	Not applicable.
	0.1 M DTT	Not applicable.
	10 mM dNTP Mix	Not applicable.
	AffinityScript RT RNase	Not applicable.
	Block Mix	
	NTP Mix	Not applicable.
	5X Transcription Buffer	Not applicable.
	T7 RNA Polymerase Blend	Not applicable.
	Cyanine-3-CTP	Not applicable.
	Cyanine-5-CTP	Not applicable.

Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits	: Nuclease-Free Water	Not available.	
	T7 Primer	Not available.	
	5X First Strand Buffer	Not available.	
	0.1 M DTT	Not available.	
	10 mM dNTP Mix	Not available.	
	AffinityScript RT RNase Block Mix	Not available.	
	NTP Mix	Not available.	
	5X Transcription Buffer	Not available.	
	T7 RNA Polymerase Blend	Not available.	
	Cyanine-3-CTP	Not available.	
	Cyanine-5-CTP	Not available.	
	Vapour pressure	: Nuclease-Free Water	3.2 kPa (23.8 mm Hg) [room temperature]
		T7 Primer	Not available.
		5X First Strand Buffer	Not available.
0.1 M DTT		Not available.	
10 mM dNTP Mix		Not available.	
AffinityScript RT RNase Block Mix		Not available.	
NTP Mix		Not available.	
5X Transcription Buffer		Not available.	
T7 RNA Polymerase Blend		Not available.	
Cyanine-3-CTP		Not available.	
Cyanine-5-CTP		Not available.	
Vapour density		: Nuclease-Free Water	0.62 [Air = 1]
		T7 Primer	Not available.
		5X First Strand Buffer	Not available.
	0.1 M DTT	Not available.	
	10 mM dNTP Mix	Not available.	
	AffinityScript RT RNase Block Mix	Not available.	
	NTP Mix	Not available.	
	5X Transcription Buffer	Not available.	
	T7 RNA Polymerase Blend	Not available.	
	Cyanine-3-CTP	Not available.	
	Cyanine-5-CTP	Not available.	
	Relative density	: Nuclease-Free Water	1
		T7 Primer	Not available.
		5X First Strand Buffer	Not available.
0.1 M DTT		Not available.	
10 mM dNTP Mix		Not available.	
AffinityScript RT RNase Block Mix		Not available.	
NTP Mix		Not available.	
5X Transcription Buffer		Not available.	
T7 RNA Polymerase Blend		Not available.	
Cyanine-3-CTP		Not available.	
Cyanine-5-CTP		Not available.	
Solubility		: Nuclease-Free Water	Easily soluble in the following materials: cold water and hot water.
		T7 Primer	Easily soluble in the following materials: cold water and hot water.
		5X First Strand Buffer	Soluble in the following materials: cold water and hot water.
	0.1 M DTT	Easily soluble in the following materials: cold water and hot water.	
	10 mM dNTP Mix	Easily soluble in the following materials: cold water and hot water.	
	AffinityScript RT RNase Block Mix	Soluble in the following materials: cold water and hot water.	
	NTP Mix	Easily soluble in the following materials: cold water and hot water.	

Section 9. Physical and chemical properties

	5X Transcription Buffer	Easily soluble in the following materials: cold water and hot water.
	T7 RNA Polymerase Blend	Soluble in the following materials: cold water and hot water.
	Cyanine-3-CTP	Easily soluble in the following materials: cold water and hot water.
	Cyanine-5-CTP	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Nuclease-Free Water	-1.38
	T7 Primer	Not available.
	5X First Strand Buffer	Not available.
	0.1 M DTT	Not available.
	10 mM dNTP Mix	Not available.
	AffinityScript RT RNase Block Mix	Not available.
	NTP Mix	Not available.
	5X Transcription Buffer	Not available.
	T7 RNA Polymerase Blend	Not available.
	Cyanine-3-CTP	Not available.
	Cyanine-5-CTP	Not available.
Auto-ignition temperature	: Nuclease-Free Water	Not applicable.
	T7 Primer	Not available.
	5X First Strand Buffer	Not available.
	0.1 M DTT	Not available.
	10 mM dNTP Mix	Not available.
	AffinityScript RT RNase Block Mix	Not available.
	NTP Mix	Not available.
	5X Transcription Buffer	Not available.
	T7 RNA Polymerase Blend	Not available.
	Cyanine-3-CTP	Not available.
	Cyanine-5-CTP	Not available.
Decomposition temperature	: Nuclease-Free Water	Not available.
	T7 Primer	Not available.
	5X First Strand Buffer	Not available.
	0.1 M DTT	Not available.
	10 mM dNTP Mix	Not available.
	AffinityScript RT RNase Block Mix	Not available.
	NTP Mix	Not available.
	5X Transcription Buffer	Not available.
	T7 RNA Polymerase Blend	Not available.
	Cyanine-3-CTP	Not available.
	Cyanine-5-CTP	Not available.
Viscosity	: Nuclease-Free Water	Not available.
	T7 Primer	Not available.
	5X First Strand Buffer	Not available.
	0.1 M DTT	Not available.
	10 mM dNTP Mix	Not available.
	AffinityScript RT RNase Block Mix	Not available.
	NTP Mix	Not available.
	5X Transcription Buffer	Not available.
	T7 RNA Polymerase Blend	Not available.
	Cyanine-3-CTP	Not available.
	Cyanine-5-CTP	Not available.

Section 10. Stability and reactivity

Reactivity	: <input checked="" type="checkbox"/> Nuclease-Free Water	No specific test data related to reactivity available for this product or its ingredients.
	T7 Primer	No specific test data related to reactivity available for this product or its ingredients.
	5X First Strand Buffer	No specific test data related to reactivity available for this product or its ingredients.
	0.1 M DTT	No specific test data related to reactivity available for this product or its ingredients.
	10 mM dNTP Mix	No specific test data related to reactivity available for this product or its ingredients.
	AffinityScript RT RNase Block Mix	No specific test data related to reactivity available for this product or its ingredients.
	NTP Mix	No specific test data related to reactivity available for this product or its ingredients.
	5X Transcription Buffer	No specific test data related to reactivity available for this product or its ingredients.
	T7 RNA Polymerase Blend	No specific test data related to reactivity available for this product or its ingredients.
	Cyanine-3-CTP	No specific test data related to reactivity available for this product or its ingredients.
	Cyanine-5-CTP	No specific test data related to reactivity available for this product or its ingredients.
	Chemical stability	: <input checked="" type="checkbox"/> Nuclease-Free Water
T7 Primer		The product is stable.
5X First Strand Buffer		The product is stable.
0.1 M DTT		The product is stable.
10 mM dNTP Mix		The product is stable.
AffinityScript RT RNase Block Mix		The product is stable.
NTP Mix		The product is stable.
5X Transcription Buffer		The product is stable.
T7 RNA Polymerase Blend		The product is stable.
Cyanine-3-CTP		The product is stable.
Cyanine-5-CTP		The product is stable.
Possibility of hazardous reactions		: <input checked="" type="checkbox"/> Nuclease-Free Water
	T7 Primer	Under normal conditions of storage and use, hazardous reactions will not occur.
	5X First Strand Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
	0.1 M DTT	Under normal conditions of storage and use, hazardous reactions will not occur.
	10 mM dNTP Mix	Under normal conditions of storage and use, hazardous reactions will not occur.
	AffinityScript RT RNase Block Mix	Under normal conditions of storage and use, hazardous reactions will not occur.
	NTP Mix	Under normal conditions of storage and use, hazardous reactions will not occur.
	5X Transcription Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
	T7 RNA Polymerase Blend	Under normal conditions of storage and use, hazardous reactions will not occur.
	Cyanine-3-CTP	Under normal conditions of storage and use, hazardous reactions will not occur.
	Cyanine-5-CTP	Under normal conditions of storage and use, hazardous reactions will not occur.

Section 10. Stability and reactivity

Conditions to avoid	: Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer T7 RNA Polymerase Blend Cyanine-3-CTP Cyanine-5-CTP	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. No specific data. No specific data. No specific data. No specific data.
Incompatible materials	: Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer T7 RNA Polymerase Blend Cyanine-3-CTP Cyanine-5-CTP	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
Hazardous decomposition products	: Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer T7 RNA Polymerase Blend Cyanine-3-CTP Cyanine-5-CTP	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
AffinityScript RT RNase Block Mix Glycerol	LD50 Oral	Rat	12600 mg/kg	-
T7 RNA Polymerase Blend Glycerol	LD50 Oral	Rat	12600 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
AffinityScript RT RNase Block Mix Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
5X Transcription Buffer Polyethylene glycol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
T7 RNA Polymerase Blend Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Sensitisation

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Section 11. Toxicological information

Information on likely routes of exposure	: Nuclease-Free Water	Not available.
	T7 Primer	Not available.
	5X First Strand Buffer	Not available.
	0.1 M DTT	Not available.
	10 mM dNTP Mix	Not available.
	AffinityScript RT RNase Block Mix	Routes of entry anticipated: Oral, Dermal, Inhalation.
	NTP Mix	Not available.
	5X Transcription Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation.
	T7 RNA Polymerase Blend	Routes of entry anticipated: Oral, Dermal, Inhalation.
	Cyanine-3-CTP	Not available.
	Cyanine-5-CTP	Not available.

Potential acute health effects

Eye contact

: Nuclease-Free Water	No known significant effects or critical hazards.
T7 Primer	No known significant effects or critical hazards.
5X First Strand Buffer	No known significant effects or critical hazards.
0.1 M DTT	No known significant effects or critical hazards.
10 mM dNTP Mix	No known significant effects or critical hazards.
AffinityScript RT RNase Block Mix	No known significant effects or critical hazards.
NTP Mix	No known significant effects or critical hazards.
5X Transcription Buffer	No known significant effects or critical hazards.
T7 RNA Polymerase Blend	No known significant effects or critical hazards.
Cyanine-3-CTP	No known significant effects or critical hazards.
Cyanine-5-CTP	No known significant effects or critical hazards.

Inhalation

: Nuclease-Free Water	No known significant effects or critical hazards.
T7 Primer	No known significant effects or critical hazards.
5X First Strand Buffer	No known significant effects or critical hazards.
0.1 M DTT	No known significant effects or critical hazards.
10 mM dNTP Mix	No known significant effects or critical hazards.
AffinityScript RT RNase Block Mix	No known significant effects or critical hazards.
NTP Mix	No known significant effects or critical hazards.
5X Transcription Buffer	No known significant effects or critical hazards.
T7 RNA Polymerase Blend	No known significant effects or critical hazards.
Cyanine-3-CTP	No known significant effects or critical hazards.
Cyanine-5-CTP	No known significant effects or critical hazards.

Skin contact

: Nuclease-Free Water	No known significant effects or critical hazards.
T7 Primer	No known significant effects or critical hazards.
5X First Strand Buffer	No known significant effects or critical hazards.
0.1 M DTT	No known significant effects or critical hazards.
10 mM dNTP Mix	No known significant effects or critical hazards.
AffinityScript RT RNase Block Mix	No known significant effects or critical hazards.
NTP Mix	No known significant effects or critical hazards.
5X Transcription Buffer	No known significant effects or critical hazards.
T7 RNA Polymerase Blend	No known significant effects or critical hazards.
Cyanine-3-CTP	No known significant effects or critical hazards.
Cyanine-5-CTP	No known significant effects or critical hazards.

Ingestion

: Nuclease-Free Water	No known significant effects or critical hazards.
T7 Primer	No known significant effects or critical hazards.
5X First Strand Buffer	No known significant effects or critical hazards.
0.1 M DTT	No known significant effects or critical hazards.
10 mM dNTP Mix	No known significant effects or critical hazards.
AffinityScript RT RNase Block Mix	No known significant effects or critical hazards.
NTP Mix	No known significant effects or critical hazards.
5X Transcription Buffer	No known significant effects or critical hazards.
T7 RNA Polymerase Blend	No known significant effects or critical hazards.
Cyanine-3-CTP	No known significant effects or critical hazards.
Cyanine-5-CTP	No known significant effects or critical hazards.

Section 11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	Nuclease-Free Water	No specific data.	
		T7 Primer	No specific data.	
		5X First Strand Buffer	No specific data.	
		0.1 M DTT	No specific data.	
		10 mM dNTP Mix	No specific data.	
		AffinityScript RT RNase Block Mix	No specific data.	
		NTP Mix	No specific data.	
		5X Transcription Buffer	No specific data.	
		T7 RNA Polymerase Blend	No specific data.	
		Cyanine-3-CTP	No specific data.	
		Cyanine-5-CTP	No specific data.	
	Inhalation	:	Nuclease-Free Water	No specific data.
			T7 Primer	No specific data.
		5X First Strand Buffer	No specific data.	
		0.1 M DTT	No specific data.	
		10 mM dNTP Mix	No specific data.	
		AffinityScript RT RNase Block Mix	No specific data.	
		NTP Mix	No specific data.	
		5X Transcription Buffer	No specific data.	
		T7 RNA Polymerase Blend	No specific data.	
		Cyanine-3-CTP	No specific data.	
		Cyanine-5-CTP	No specific data.	
Skin contact		:	Nuclease-Free Water	No specific data.
			T7 Primer	No specific data.
		5X First Strand Buffer	No specific data.	
		0.1 M DTT	No specific data.	
		10 mM dNTP Mix	No specific data.	
		AffinityScript RT RNase Block Mix	No specific data.	
		NTP Mix	No specific data.	
		5X Transcription Buffer	No specific data.	
		T7 RNA Polymerase Blend	No specific data.	
		Cyanine-3-CTP	No specific data.	
		Cyanine-5-CTP	No specific data.	
	Ingestion	:	Nuclease-Free Water	No specific data.
			T7 Primer	No specific data.
		5X First Strand Buffer	No specific data.	
		0.1 M DTT	No specific data.	
		10 mM dNTP Mix	No specific data.	
		AffinityScript RT RNase Block Mix	No specific data.	
		NTP Mix	No specific data.	
		5X Transcription Buffer	No specific data.	
		T7 RNA Polymerase Blend	No specific data.	
		Cyanine-3-CTP	No specific data.	
		Cyanine-5-CTP	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.

Section 11. Toxicological information

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General	: Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer T7 RNA Polymerase Blend Cyanine-3-CTP Cyanine-5-CTP	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	: Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer T7 RNA Polymerase Blend Cyanine-3-CTP Cyanine-5-CTP	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer T7 RNA Polymerase Blend Cyanine-3-CTP Cyanine-5-CTP	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer T7 RNA Polymerase Blend Cyanine-3-CTP Cyanine-5-CTP	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Developmental effects	: Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Section 11. Toxicological information

Fertility effects	:	T7 RNA Polymerase Blend	No known significant effects or critical hazards.
		Cyanine-3-CTP	No known significant effects or critical hazards.
		Cyanine-5-CTP	No known significant effects or critical hazards.
		Nuclease-Free Water	No known significant effects or critical hazards.
		T7 Primer	No known significant effects or critical hazards.
		5X First Strand Buffer	No known significant effects or critical hazards.
		0.1 M DTT	No known significant effects or critical hazards.
		10 mM dNTP Mix	No known significant effects or critical hazards.
		AffinityScript RT RNase Block Mix	No known significant effects or critical hazards.
		NTP Mix	No known significant effects or critical hazards.
5X Transcription Buffer	No known significant effects or critical hazards.		
T7 RNA Polymerase Blend	No known significant effects or critical hazards.		
Cyanine-3-CTP	No known significant effects or critical hazards.		
Cyanine-5-CTP	No known significant effects or critical hazards.		

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Other information

:	Nuclease-Free Water	Not available.
	T7 Primer	Not available.
	5X First Strand Buffer	Not available.
	0.1 M DTT	Not available.
	10 mM dNTP Mix	Not available.
	AffinityScript RT RNase Block Mix	Not available.
	NTP Mix	Not available.
	5X Transcription Buffer	Not available.
	T7 RNA Polymerase Blend	Not available.
	Cyanine-3-CTP	Not available.
	Cyanine-5-CTP	Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
AffinityScript RT RNase Block Mix Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
5X Transcription Buffer Polyethylene glycol	Acute LC50 >1000000 µg/l Fresh water	Fish - Salmo salar - Parr	96 hours
T7 RNA Polymerase Blend Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
AffinityScript RT RNase Block Mix Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
T7 RNA Polymerase Blend Glycerol	301D Ready	93 % - 30 days	-	-

Section 12. Ecological information

	Biodegradability - Closed Bottle Test		
Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Nuclease-Free Water Water	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Nuclease-Free Water Water	-1.38	-	low
AffinityScript RT RNase Block Mix Glycerol	-1.76	-	low
5X Transcription Buffer Polyethylene glycol	-	3.2	low
T7 RNA Polymerase Blend 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)

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	: <input checked="" type="checkbox"/> Not determined.
Canada	: <input checked="" type="checkbox"/> Not determined.
China	: <input checked="" type="checkbox"/> Not determined.
Europe	: All components are listed or exempted.
Japan	: <input checked="" type="checkbox"/> Japan inventory (ENCS): Not determined. Japan inventory (ISHL): Not determined.
Malaysia	: <input checked="" type="checkbox"/> Not determined.
New Zealand	: <input checked="" type="checkbox"/> Not determined.
Philippines	: <input checked="" type="checkbox"/> Not determined.
Republic of Korea	: <input checked="" type="checkbox"/> Not determined.
Taiwan	: <input checked="" type="checkbox"/> Not determined.
Thailand	: <input checked="" type="checkbox"/> Not determined.
Turkey	: Not determined.
United States	: <input checked="" type="checkbox"/> Not determined.
Viet Nam	: <input checked="" type="checkbox"/> Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 31/12/2017

Date of previous issue : 24/12/2015.

Version : 4.01

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

Section 16. Any other relevant information

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

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