

SAFETY DATA SHEET

LowInput QuickAmp Labeling Kit, Cy5

Section 1. Identification

Product identifier	: LowInput QuickAmp Labeling Kit, Cy5	
Part no. (chemical kit)	: 5190-2307	
Part no.	: 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-5-CTP	5190-2330

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

Identified uses	: Analytical reagent.	
	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-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

AffinityScript RT RNase Block Mix
H320

SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B

T7 RNA Polymerase Blend
H320

SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B

5X First Strand Buffer	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 59%
NTP Mix	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 2.9%

GHS label elements

Section 2. Hazard(s) identification

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-5-CTP	No signal word. No signal word. No signal word. No signal word. No signal word. WARNING No signal word. No signal word. WARNING No signal word.
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-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. H320 - Causes eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. H320 - Causes eye irritation. No known significant effects or critical hazards.
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-5-CTP	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
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. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention. Not applicable. Not applicable. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
Storage	: 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	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.

Section 2. Hazard(s) identification

	T7 RNA Polymerase Blend	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-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-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-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	Mixture
	Block Mix	
	NTP Mix	Mixture
	5X Transcription Buffer	Mixture
	T7 RNA Polymerase Blend	Mixture
	Cyanine-5-CTP	Mixture

CAS number/other identifiers

Section 3. Composition and ingredient information

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		
Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	≥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 and hence require reporting in this section.

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

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

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: 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. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
	NTP 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.
	5X Transcription 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.
	T7 RNA Polymerase Blend	Immediately flush eyes with plenty of water,

Section 4. First aid measures

		occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
	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. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	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. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	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. Wash clothing before reuse. Clean shoes thoroughly before reuse.
		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. Wash clothing before reuse. Clean shoes thoroughly before reuse.
		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. 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. 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. 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. 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. 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 Mix	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If

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	vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
NTP Mix	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
5X Transcription Buffer	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
T7 RNA Polymerase Blend	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Cyanine-5-CTP	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: 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-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. Causes eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes eye irritation. No known significant effects or critical hazards.
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-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.

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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-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.
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-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.
<u>Over-exposure signs/symptoms</u>		
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-5-CTP	No specific data. No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: irritation watering redness No specific data. No specific data. Adverse symptoms may include the following: irritation watering redness 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-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.
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-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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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-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-5-CTP	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.	

Specific treatments	:	☑ Nuclease-Free Water	No specific treatment.
		T7 Primer	No specific treatment.
		5X First Strand Buffer	No specific treatment.
		0.1 M DTT	No specific treatment.
		10 mM dNTP Mix	No specific treatment.
		AffinityScript RT RNase	No specific treatment.
		Block Mix	
		NTP Mix	No specific treatment.
		5X Transcription Buffer	No specific treatment.
		T7 RNA Polymerase Blend	No specific treatment.
		Cyanine-5-CTP	No specific treatment.

Section 4. First aid measures

Protection of first-aiders	: Nuclease-Free Water	No action shall be taken involving any personal risk or without suitable training.
	T7 Primer	No action shall be taken involving any personal risk or without suitable training.
	5X First Strand Buffer	No action shall be taken involving any personal risk or without suitable training.
	0.1 M DTT	No action shall be taken involving any personal risk or without suitable training.
	10 mM dNTP Mix	No action shall be taken involving any personal risk or without suitable training.
	AffinityScript RT RNase Block Mix	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	NTP Mix	No action shall be taken involving any personal risk or without suitable training.
	5X Transcription Buffer	No action shall be taken involving any personal risk or without suitable training.
	T7 RNA Polymerase Blend	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	Cyanine-5-CTP	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	Use an extinguishing agent suitable for the surrounding fire.
	T7 Primer	Use an extinguishing agent suitable for the surrounding fire.
	5X First Strand Buffer	Use an extinguishing agent suitable for the surrounding fire.
	0.1 M DTT	Use an extinguishing agent suitable for the surrounding fire.
	10 mM dNTP Mix	Use an extinguishing agent suitable for the surrounding fire.
	AffinityScript RT RNase Block Mix	Use an extinguishing agent suitable for the surrounding fire.
	NTP Mix	Use an extinguishing agent suitable for the surrounding fire.
	5X Transcription Buffer	Use an extinguishing agent suitable for the surrounding fire.
	T7 RNA Polymerase Blend	Use an extinguishing agent suitable for the surrounding fire.
	Cyanine-5-CTP	Use an extinguishing agent suitable for the surrounding fire.
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 Block Mix	None known.
	NTP Mix	None known.
	5X Transcription Buffer	None known.
	T7 RNA Polymerase Blend	None known.
	Cyanine-5-CTP	None known.

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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 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-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 Block Mix	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	NTP Mix	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides metal oxide/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: carbon dioxide carbon monoxide
	Cyanine-5-CTP	No specific data.
Special protective actions for fire-fighters	: Nuclease-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

Section 5. Firefighting measures

		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-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	: Nuclease-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 (SCBA) with a full face-piece operated in positive pressure mode.
	10 mM dNTP 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 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

Section 5. Firefighting measures

Cyanine-5-CTP

equipment and self-contained breathing apparatus (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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: 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 protective equipment.

AffinityScript RT RNase Block 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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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

Section 6. Accidental release measures

		personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	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 suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	5X Transcription 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".
	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-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	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 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

Section 6. Accidental release measures

	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, 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

	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 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.

Section 6. Accidental release measures

10 mM dNTP Mix	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.
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. 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	: <input checked="" type="checkbox"/> 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). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	NTP Mix	Put on appropriate personal protective equipment (see Section 8).
	5X Transcription Buffer	Put on appropriate personal protective equipment (see Section 8).

Section 7. Handling and storage

Advice on general occupational hygiene

T7 RNA Polymerase Blend	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Cyanine-5-CTP	Put on appropriate personal protective equipment (see Section 8).
: 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.
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

Section 7. Handling and storage

T7 RNA Polymerase Blend	contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
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.
<p>Conditions for safe storage, including any incompatibilities : Nuclease-Free Water</p>	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
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

Section 7. Handling and storage

AffinityScript RT RNase
Block Mix

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.

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.

NTP 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.

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-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

Section 7. Handling and storage

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, 10/2022). TWA: 10 mg/m ³ 8 hours.
5X Transcription Buffer Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	DFG MAC-values list (Germany, 7/2023). [Polyethylene glycol (average molecular weight 200 – 600)] PEAK: 400 mg/m ³ , 4 times per shift, 15 minutes. Form: inhalable fraction TWA: 200 mg/m ³ 8 hours. Form: inhalable fraction
T7 RNA Polymerase Blend Glycerol	Safe Work Australia (Australia, 10/2022). TWA: 10 mg/m ³ 8 hours.

[Biological exposure indices](#)

No exposure indices known.

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

[Individual protection measures](#)

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : **✓** Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : **✓** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Section 8. Exposure controls and personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state	:	☑ 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 Block Mix	Liquid.
		NTP Mix	Liquid.
		5X Transcription Buffer	Liquid.
		T7 RNA Polymerase Blend	Liquid.
		Cyanine-5-CTP	Liquid.
Colour	:	☑ Nuclease-Free Water	Colourless.
		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-5-CTP	Not available.
Odour	:	☑ Nuclease-Free Water	Odourless.
		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-5-CTP	Not available.
Odour threshold	:	☑ 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-5-CTP	Not available.

Section 9. Physical and chemical properties and safety characteristics

pH :

Nuclease-Free Water	7
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-5-CTP	7.6

Melting point/freezing 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 Block Mix	Not available.
NTP Mix	0°C (32°F)
5X Transcription Buffer	Not available.
T7 RNA Polymerase Blend	Not available.
Cyanine-5-CTP	0°C (32°F)

Boiling point, initial boiling point, and boiling range :

Nuclease-Free Water	100°C (212°F)
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 Block Mix	Not available.
NTP Mix	100°C (212°F)
5X Transcription Buffer	Not available.
T7 RNA Polymerase Blend	Not available.
Cyanine-5-CTP	100°C (212°F)

Flash point :

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
AffinityScript RT RNase Block Mix						
Glycerol	-	-	-	177	350.6	-
5X Transcription Buffer						
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy-Ethane-1,2-diol, ethoxylated	171 to 235	339.8 to 455	-	199 to 238	390.2 to 460.4	-
T7 RNA Polymerase Blend						
Glycerol	-	-	-	177	350.6	-

Section 9. Physical and chemical properties and safety characteristics

Evaporation rate	: <input checked="" type="checkbox"/> 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-5-CTP	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Flammability	: <input checked="" type="checkbox"/> 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-5-CTP	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Lower and upper explosion limit/flammability limit	: <input checked="" type="checkbox"/> 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-5-CTP	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Vapour pressure	: <input checked="" type="checkbox"/> Nuclease-Free Water	2.3 kPa (17.5 mm Hg) [room temperature] 12.3 kPa (92.258 mm Hg) [50°C (122°F)]

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
<input checked="" type="checkbox"/> T7 Primer						
water	17.5	2.3	-	92.258	12.3	-
5X First Strand Buffer						
water	17.5	2.3	-	92.258	12.3	-
0.1 M DTT						
water	17.5	2.3	-	92.258	12.3	-
10 mM dNTP Mix						
water	17.5	2.3	-	92.258	12.3	-
AffinityScript RT						

Section 9. Physical and chemical properties and safety characteristics

RNase Block Mix							
water	17.5	2.3	-	92.258	12.3	-	
Glycerol	0.000075	0.00001	-	0.0025	0.00033	-	
NTP Mix							
water	17.5	2.3	-	92.258	12.3	-	
5X Transcription Buffer							
water	17.5	2.3	-	92.258	12.3	-	
T7 RNA Polymerase Blend							
water	17.5	2.3	-	92.258	12.3	-	
Glycerol	0.000075	0.00001	-	0.0025	0.00033	-	
Cyanine-5-CTP							
water	17.5	2.3	-	92.258	12.3	-	

Relative 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-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-5-CTP Not available.

Solubility(ies) :

Media	Result
<input checked="" type="checkbox"/> Nuclease-Free Water	
water	Soluble
T7 Primer	
water	Soluble
5X First Strand Buffer	
water	Soluble
0.1 M DTT	
water	Soluble
10 mM dNTP Mix	

Section 9. Physical and chemical properties and safety characteristics

water	Soluble
AffinityScript RT RNase Block Mix	
water	Soluble
NTP Mix	
water	Soluble
5X Transcription Buffer	
water	Soluble
T7 RNA Polymerase Blend	
water	Soluble
Cyanine-5-CTP	
water	Soluble

Partition coefficient: n-octanol/water :

Nuclease-Free Water	-1.38
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 Block Mix	Not applicable.
NTP Mix	Not applicable.
5X Transcription Buffer	Not applicable.
T7 RNA Polymerase Blend	Not applicable.
Cyanine-5-CTP	Not applicable.

Auto-ignition temperature :

Nuclease-Free Water	Not applicable.
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Ingredient name	°C	°F	Method
AffinityScript RT RNase Block Mix			
Glycerol	370	698	-
5X Transcription Buffer			
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	360	680	-
T7 RNA Polymerase Blend			
Glycerol	370	698	-

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-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.

Section 9. Physical and chemical properties and safety characteristics

T7 RNA Polymerase Blend Not available.
Cyanine-5-CTP Not available.

Particle characteristics

Median particle size

: 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 Block Mix Not applicable.
NTP Mix Not applicable.
5X Transcription Buffer Not applicable.
T7 RNA Polymerase Blend Not applicable.
Cyanine-5-CTP Not applicable.

Section 10. Stability and reactivity

Reactivity

: 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-5-CTP No specific test data related to reactivity available for this product or its ingredients.

Chemical stability

: Nuclease-Free Water The product is stable.
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-5-CTP The product is stable.

Possibility of hazardous reactions

: Nuclease-Free Water Under normal conditions of storage and use, hazardous reactions will not occur.
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.

Section 10. Stability and reactivity

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-5-CTP	Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid

<ul style="list-style-type: none"> ☒ 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-5-CTP 	<ul style="list-style-type: none"> 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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Incompatible materials

<ul style="list-style-type: none"> ☒ 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-5-CTP 	<ul style="list-style-type: none"> 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.
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Hazardous decomposition products

<ul style="list-style-type: none"> ☒ Nuclease-Free Water 	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
T7 Primer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
5X First Strand Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
0.1 M DTT	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
10 mM dNTP Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
AffinityScript RT RNase Block Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
NTP Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
5X Transcription Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
T7 RNA Polymerase Blend	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 10. Stability and reactivity

Cyanine-5-CTP

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 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
5X Transcription Buffer Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
T7 RNA Polymerase Blend Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

Sensitisation

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Section 11. Toxicological information

Information on likely routes of exposure	<ul style="list-style-type: none"> ☑ 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-5-CTP 	<ul style="list-style-type: none"> Not available. Not available. Not available. Not available. Not available. Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes. Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes. Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes. Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes. Not available.
Potential acute health effects		
Eye contact	<ul style="list-style-type: none"> ☑ 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-5-CTP 	<ul style="list-style-type: none"> 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. Causes eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes eye irritation. No known significant effects or critical hazards.
Inhalation	<ul style="list-style-type: none"> ☑ 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-5-CTP 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> ☑ 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-5-CTP 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> ☑ 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-5-CTP 	<ul style="list-style-type: none"> 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.

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	Adverse symptoms may include the following: irritation watering redness
		NTP Mix	No specific data.
		5X Transcription Buffer	No specific data.
		T7 RNA Polymerase Blend	Adverse symptoms may include the following: irritation watering redness
		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-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-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-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

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-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.
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-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.
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-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.
Reproductive toxicity	: 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-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.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
AffinityScript RT RNase Block Mix Glycerol	12600	N/A	N/A	N/A	N/A
5X Transcription Buffer Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy-Ethane-1,2-diol, ethoxylated	28000	N/A	N/A	N/A	N/A

Section 11. Toxicological information

T7 RNA Polymerase Blend Glycerol	12600	N/A	N/A	N/A	N/A
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Other information

: 5X Transcription Buffer

Adverse symptoms may include the following: May cause skin sensitisation.

T7 RNA Polymerase Blend

Adverse symptoms may include the following: May cause skin sensitisation.

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 - <i>Oncorhynchus mykiss</i>	96 hours
5X Transcription Buffer Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	Acute EC50 >100 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 >1000000 μ g/l Fresh water	Fish - <i>Salmo salar</i> - Parr	96 hours
T7 RNA Polymerase Blend Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
AffinityScript RT RNase Block Mix Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
5X Transcription Buffer Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	OECD 301D Ready Biodegradability - Closed Bottle Test	74.85 % - Readily - 28 days	4 mg/l	-
T7 RNA Polymerase Blend Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Nuclease-Free Water water	-	-	Readily
5X Transcription Buffer Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	-	-	Readily

Bioaccumulative potential

Section 12. Ecological information

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 Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	-	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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

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

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

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons

Not regulated.

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Section 15. Regulatory information

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : Not determined.

New Zealand : Not determined.

United States : Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 23/05/2024

Date of previous issue : 24/05/2021

Version : 7

Key to abbreviations

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

Procedure used to derive the classification

Classification	Justification
<input checked="" type="checkbox"/> AffinityScript RT RNase Block Mix SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B	Calculation method
T7 RNA Polymerase Blend SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B	Calculation method

Indicates information that has changed from previously issued version.

Notice to reader

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