SAFETY DATA SHEET

Agilent Technologies

LowInput QuickAmp Labeling Kit, Cy5

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

1.1 Product identifier

Product name : LowInput QuickAmp Labeling Kit, Cy5

CAS number :

Nuclease-Free Water	7732-18-5
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.

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

1.2 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

Uses advised against : None known.

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Deutschland GmbH
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

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

1.4 Emergency telephone number

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

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Nuclease-Free Water — Mono-constituent 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-5-CTP — Mixture

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

Not classified.

Nuclease-Free Water	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
T7 Primer	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
5X First Strand Buffer	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
0.1 M DTT	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
10 mM dNTP Mix	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
AffinityScript RT RNase Block Mix	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
NTP Mix	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
5X Transcription Buffer	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
T7 RNA Polymerase Blend	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
Cyanine-5-CTP	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Ingredients of unknown toxicity :

5X First Strand Buffer	Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10% Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: > 60%
AffinityScript RT RNase Block Mix	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60%
NTP Mix	Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10% Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10% Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 1 - 10%
5X Transcription Buffer	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%
T7 RNA Polymerase Blend	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60%

Ingredients of unknown ecotoxicity :

5X First Strand Buffer	Contains 59% of components with unknown hazards to the aquatic environment
NTP Mix	Contains 2.9% of components with unknown hazards to the aquatic environment

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

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

SECTION 2: Hazards identification

2.2 Label elements

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

Precautionary statements

Prevention	:	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.
Response	:	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.
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 Block Mix	Not applicable.
		NTP Mix	Not applicable.
		5X Transcription Buffer	Not applicable.
		T7 RNA Polymerase Blend	Not applicable.

SECTION 2: Hazards identification

		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 Block Mix	Not applicable.
		NTP Mix	Not applicable.
		5X Transcription Buffer	Not applicable.
		T7 RNA Polymerase Blend	Not applicable.
		Cyanine-5-CTP	Not applicable.
Supplemental label elements	:	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.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	:	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.

Special packaging requirements

Tactile warning of danger	:	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.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII :

PBT	P	B	T	vPvB	vP	vB
Nuclease-Free Water Not applicable (Inorganic)	N/A	N/A	N/A	Not applicable (Inorganic)	N/A	N/A

SECTION 2: Hazards identification

	T7 Primer	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	5X First Strand Buffer	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	0.1 M DTT	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	10 mM dNTP Mix	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	AffinityScript RT RNase Block Mix	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	NTP Mix	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	5X Transcription Buffer	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	T7 RNA Polymerase Blend	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	Cyanine-5-CTP	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
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 Block Mix	None known.
	NTP Mix	None known.
	5X Transcription Buffer	None known.
	T7 RNA Polymerase Blend	None known.
	Cyanine-5-CTP	None known.

SECTION 3: Composition/information on ingredients

3.1 Substances :	Nuclease-Free Water	Mono-constituent 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-5-CTP	Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Nuclease-Free Water					
water	REACH #: Annex IV EC: 231-791-2 CAS: 7732-18-5	100	Not classified.	-	[1]
AffinityScript RT RNase Block Mix					
glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified.	-	[1]
T7 RNA Polymerase Blend					
glycerol	REACH #: Annex V	≥50 - ≤75	Not classified.	-	[1]

SECTION 3: Composition/information on ingredients

	EC: 200-289-5 CAS: 56-81-5		**See Section 16 for the full text of the H statements declared above.**		

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

Nuclease-Free Water	[1] Constituent
AffinityScript RT RNase Block Mix	[1] Substance with a workplace exposure limit
T7 RNA Polymerase Blend	[1] Substance with a workplace exposure limit

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

SECTION 4: First aid measures

4.1 Description of 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. 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, 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.

SECTION 4: First aid measures

		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-5-CTP	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
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-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

SECTION 4: First aid measures

		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. 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. 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. 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. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Protection of first-aiders :	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.
	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.
	Cyanine-5-CTP	No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

SECTION 4: First aid measures

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-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-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-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-5-CTP	No known significant effects or critical hazards.

Over-exposure signs/symptoms

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-5-CTP	No specific data.

SECTION 4: First aid measures

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.

4.3 Indication of any immediate medical attention and special treatment needed

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 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.

SECTION 4: First aid measures

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 Block Mix	No specific treatment.
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 5: Firefighting measures

5.1 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.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture :

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.

SECTION 5: Firefighting measures

Hazardous combustion 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.

5.3 Advice for firefighters

Special precautions 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 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.

SECTION 5: Firefighting measures

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

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	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. 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-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".

SECTION 6: Accidental release measures

	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".
6.2 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 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

SECTION 6: Accidental release measures

	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).

6.3 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. 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. 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.

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

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures	:	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-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.
		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.

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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-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.

7.2 Conditions for safe storage, including any incompatibilities

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

	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 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 environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

SECTION 7: Handling and storage

Recommendations	:	Nuclease-Free Water	Industrial applications, Professional applications.
		T7 Primer	Industrial applications, Professional applications.
		5X First Strand Buffer	Industrial applications, Professional applications.
		0.1 M DTT	Industrial applications, Professional applications.
		10 mM dNTP Mix	Industrial applications, Professional applications.
		AffinityScript RT RNase Block Mix	Industrial applications, Professional applications.
		NTP Mix	Industrial applications, Professional applications.
		5X Transcription Buffer	Industrial applications, Professional applications.
		T7 RNA Polymerase Blend	Industrial applications, Professional applications.
		Cyanine-5-CTP	Industrial applications, Professional applications.
Industrial sector specific solutions	:	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 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
AffinityScript RT RNase Block Mix	
Glycerol	**NAOSH (Ireland, 5/2021). Notes: Advisory Occupational Exposure Limit Values (OELVs)** OELV: 10 mg/m³ 8 hours. Form: mist
T7 RNA Polymerase Blend	
Glycerol	**NAOSH (Ireland, 5/2021). Notes: Advisory Occupational Exposure Limit Values (OELVs)** OELV: 10 mg/m³ 8 hours. Form: mist

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

SECTION 8: Exposure controls/personal protection

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

Individual protection measures

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

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

Skin protection

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

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

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

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

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

SECTION 9: Physical and chemical properties

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

9.1 Information on basic 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 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.

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		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.
Melting point/freezing point	:	Nuclease-Free Water	0°C
		T7 Primer	0°C
		5X First Strand Buffer	Not available.
		0.1 M DTT	0°C
		10 mM dNTP Mix	0°C
		AffinityScript RT RNase Block Mix	Not available.
		NTP Mix	0°C
		5X Transcription Buffer	Not available.
		T7 RNA Polymerase Blend	Not available.
		Cyanine-5-CTP	0°C
Initial boiling point and boiling range	:	Nuclease-Free Water	100°C
		T7 Primer	100°C
		5X First Strand Buffer	Not available.
		0.1 M DTT	100°C
		10 mM dNTP Mix	100°C
		AffinityScript RT RNase Block Mix	Not available.
		NTP Mix	100°C
		5X Transcription Buffer	Not available.
		T7 RNA Polymerase Blend	Not available.
		Cyanine-5-CTP	100°C
Flammability	:	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 9: Physical and chemical properties

Upper/lower flammability or explosive 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-5-CTP	Not available.

Flash point :

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

Auto-ignition temperature :

Nuclease-Free Water	Not applicable.

Ingredient name	°C	Method
AffinityScript RT RNase Block Mix		
glycerol	370	-
5X Transcription Buffer		
Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy-Ethane-1,2-diol, ethoxylated	360	-
T7 RNA Polymerase Blend		
glycerol	370	-

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.

SECTION 9: Physical and chemical properties

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

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-5-CTP	Not available.

Solubility(ies) :

Media	Result
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	
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.

Vapour pressure :

Nuclease-Free Water	2.3 kPa (17.5 mm Hg) [room temperature] 12.3 kPa (92.258 mm Hg) [50°C]

SECTION 9: Physical and chemical properties

Ingredient name	Vapour Pressure at 20˚C			Vapour pressure at 50˚C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
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 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	-

Evaporation rate :

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	Not available.

SECTION 9: Physical and chemical properties

		Blend	
		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.
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.
Explosive properties	:	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.
Oxidising properties	:	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.
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 9: Physical and chemical properties

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 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.
10.2 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.
10.3 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.
		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.

SECTION 10: Stability and reactivity

10.4 Conditions to avoid	:	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.
10.5 Incompatible materials	:	Nuclease-Free Water	May react or be incompatible with oxidising materials.
		T7 Primer	May react or be incompatible with oxidising materials.
		5X First Strand Buffer	May react or be incompatible with oxidising materials.
		0.1 M DTT	May react or be incompatible with oxidising materials.
		10 mM dNTP Mix	May react or be incompatible with oxidising materials.
		AffinityScript RT RNase Block Mix	May react or be incompatible with oxidising materials.
		NTP Mix	May react or be incompatible with oxidising materials.
		5X Transcription Buffer	May react or be incompatible with oxidising materials.
		T7 RNA Polymerase Blend	May react or be incompatible with oxidising materials.
		Cyanine-5-CTP	May react or be incompatible with oxidising materials.
10.6 Hazardous decomposition products	:	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.
		Cyanine-5-CTP	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not available.

Acute toxicity estimates

N/A

Irritation/Corrosion

Conclusion/Summary : Not available.

Sensitiser

Conclusion/Summary : Not available.

Mutagenicity

SECTION 11: Toxicological information

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure :

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, Eyes.
NTP Mix	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
5X Transcription Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
T7 RNA Polymerase Blend	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Cyanine-5-CTP	Not available.

Potential acute health effects

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-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-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.

SECTION 11: Toxicological information

		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-5-CTP	No known significant effects or critical hazards.
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-5-CTP	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

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.
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.
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.
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.

SECTION 11: Toxicological information

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.

Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General :	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-5-CTP	No known significant effects or critical hazards.
Carcinogenicity :	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-5-CTP	No known significant effects or critical hazards.
Mutagenicity :	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-5-CTP	No known significant effects or critical hazards.

SECTION 11: Toxicological information

Reproductive toxicity	:	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-5-CTP	No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 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

12.1 Toxicity

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Nuclease-Free Water water	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Nuclease-Free Water water	-1.38	-	Low

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Nuclease-Free Water water	Not applicable (Inorganic)	N/A	N/A	N/A	Not applicable (Inorganic)	N/A	N/A

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

SECTION 12: Ecological information

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

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

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

Packaging

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

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

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.

Additional information

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

14.7 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

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

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

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

SECTION 15: Regulatory information

None of the components are listed.

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

No listed substance

Label	:	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.

Other EU regulations

Ozone depleting substances (1005/2009/EU)

Not listed.

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

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	**Russian Federation inventory**: Not determined.
Japan	:	**Japan inventory (CSCL)**: Not determined. **Japan inventory (ISHL)**: Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.

SECTION 15: Regulatory information

United States : Not determined.

Viet Nam : All components are listed or exempted.

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

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

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

Classification	Justification
Not classified.	

Full text of abbreviated H statements

Not applicable.

Full text of classifications [CLP/GHS]

Not applicable.

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

Date of previous issue : No previous validation

Version : 1

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