

# SAFETY DATA SHEET



Low Input QuickAmp WT Labeling Kit - Two-Color, Part Number 5190-2944

## Section 1. Identification

### 1.1 Product identifier

**Product name** : Low Input QuickAmp WT Labeling Kit - Two-Color, Part Number 5190-2944

**Part No. (Chemical Kit)** : 5190-2944

**Part No.** :

<input checked="" type="checkbox"/> Nuclease-Free Water	5190-2328
T7 Primer	5190-2320
5X First Strand Buffer	5190-2321
0.1 M DTT	5190-2322
10 mM dNTP Mix	5190-2323
AffinityScript RT RNase Block Mix	5190-2324
NTP Mix	5190-2326
5X Transcription Buffer	5190-2325
T7 RNA Polymerase Blend	5190-2327
Cyanine-3-CTP	5190-2329
Cyanine-5-CTP	5190-2330
WT Primer Mix	5190-2941

**Validation date** : 6/30/2017

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

**Material uses** : Analytical reagent.

<input checked="" type="checkbox"/> Nuclease-Free Water	0.25 ml
T7 Primer	0.024 ml
5X First Strand Buffer	0.1 ml
0.1 M DTT	0.07 ml
10 mM dNTP Mix	0.02 ml
AffinityScript RNase Block Mix	0.036 ml
NTP Mix	0.035 ml
5X Transcription Buffer	0.16 ml
T7 RNA Polymerase Blend	0.01 ml
Cyanine-3-CTP	0.008 ml
Cyanine-5-CTP	0.008 ml
WT Primer Mix	0.03 ml

### 1.3 Details of the supplier of the safety data sheet

**Supplier/Manufacturer** : Agilent Technologies, Inc.  
5301 Stevens Creek Blvd  
Santa Clara, CA 95051, USA  
800-227-9770

### 1.4 Emergency telephone number

**In case of emergency** : CHEMTREC®: 1-800-424-9300

## Section 2. Hazards identification

### 2.1 Classification of the substance or mixture

## Section 2. Hazards identification

<b>OSHA/HCS status</b>	: Nuclease-Free Water	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	T7 Primer	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	5X First Strand Buffer	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	0.1 M DTT	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	10 mM dNTP Mix	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	AffinityScript RT RNase Block Mix NTP Mix	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	5X Transcription Buffer	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	T7 RNA Polymerase Blend	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	Cyanine-3-CTP	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	Cyanine-5-CTP	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	WT Primer Mix	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

## Section 2. Hazards identification

other users of this product.

### Classification of the substance or mixture

#### AffinityScript RT RNase Block

##### Mix

H320 EYE IRRITATION - Category 2B

#### 5X Transcription Buffer

H319 EYE IRRITATION - Category 2A

#### T7 RNA Polymerase Blend

H320 EYE IRRITATION - Category 2B

#### Ingredients of unknown toxicity

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

### 2.2 GHS label elements

#### Hazard pictograms

: 5X Transcription Buffer



#### 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	Warning
NTP Mix	No signal word.
5X Transcription Buffer	Warning
T7 RNA Polymerase Blend	Warning
Cyanine-3-CTP	No signal word.
Cyanine-5-CTP	No signal word.
WT Primer Mix	No signal word.

## Section 2. Hazards identification

<b>Hazard statements</b>	<ul style="list-style-type: none"> <li>: Nuclease-Free Water</li> <li>T7 Primer</li> <li>5X First Strand Buffer</li> <li>0.1 M DTT</li> <li>10 mM dNTP Mix</li> <li>AffinityScript RT RNase Block Mix</li> <li>NTP Mix</li> <li>5X Transcription Buffer</li> <li>T7 RNA Polymerase Blend</li> <li>Cyanine-3-CTP</li> <li>Cyanine-5-CTP</li> <li>WT Primer Mix</li> </ul>	<ul style="list-style-type: none"> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>H320 - Causes eye irritation.</li> <li>No known significant effects or critical hazards.</li> <li>H319 - Causes serious eye irritation.</li> <li>H320 - Causes eye irritation.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> </ul>
<b>Precautionary statements</b>		
<b>Prevention</b>	<ul style="list-style-type: none"> <li>: Nuclease-Free Water</li> <li>T7 Primer</li> <li>5X First Strand Buffer</li> <li>0.1 M DTT</li> <li>10 mM dNTP Mix</li> <li>AffinityScript RT RNase Block Mix</li> <li>NTP Mix</li> <li>5X Transcription Buffer</li>   <li>T7 RNA Polymerase Blend</li> <li>Cyanine-3-CTP</li> <li>Cyanine-5-CTP</li> <li>WT Primer Mix</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable.</li> <li>Not applicable.</li> <li>Not applicable.</li> <li>Not applicable.</li> <li>Not applicable.</li> <li>P264 - Wash hands thoroughly after handling.</li> <li>Not applicable.</li> <li>P280 - Wear eye or face protection.</li> <li>P264 - Wash hands thoroughly after handling.</li> <li>P264 - Wash hands thoroughly after handling.</li> <li>Not applicable.</li> <li>Not applicable.</li> <li>Not applicable.</li> </ul>
<b>Response</b>	<ul style="list-style-type: none"> <li>: Nuclease-Free Water</li> <li>T7 Primer</li> <li>5X First Strand Buffer</li> <li>0.1 M DTT</li> <li>10 mM dNTP Mix</li> <li>AffinityScript RT RNase Block Mix</li>   <li>NTP Mix</li> <li>5X Transcription Buffer</li>   <li>T7 RNA Polymerase Blend</li>   <li>Cyanine-3-CTP</li> <li>Cyanine-5-CTP</li> <li>WT Primer Mix</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable.</li> <li>Not applicable.</li> <li>Not applicable.</li> <li>Not applicable.</li> <li>Not applicable.</li> <li>P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P337 + P313 - If eye irritation persists: Get medical attention.</li> <li>Not applicable.</li> <li>P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P337 + P313 - If eye irritation persists: Get medical attention.</li> <li>P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P337 + P313 - If eye irritation persists: Get medical attention.</li> <li>Not applicable.</li> <li>Not applicable.</li> <li>Not applicable.</li> </ul>

## Section 2. Hazards identification

<b>Storage</b>	: <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-3-CTP Cyanine-5-CTP WT Primer Mix	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
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<b>Disposal</b>	: <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-3-CTP Cyanine-5-CTP WT Primer Mix	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
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<b>Supplemental label elements</b>	: <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-3-CTP Cyanine-5-CTP WT Primer Mix	None known. None known. None known. None known. None known. None known. None known. None known. None known. None known. None known. None known.
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### 2.3 Other hazards

<b>Hazards not otherwise classified</b>	: <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-3-CTP Cyanine-5-CTP WT Primer Mix	None known. None known. None known. None known. None known. None known. None known. None known. None known. None known. None known. None known.
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## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix NTP Mix 5X Transcription Buffer T7 RNA Polymerase Blend Cyanine-3-CTP Cyanine-5-CTP WT Primer Mix	Substance Mixture Mixture Mixture Mixture Mixture Mixture Mixture Mixture Mixture Mixture Mixture Mixture Mixture
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Ingredient name	%	CAS number
<b>Nuclease-Free Water</b> Water	100	7732-18-5
<b>5X First Strand Buffer</b> Potassium chloride	≤3	7447-40-7
<b>AffinityScript RT RNase Block Mix</b> Glycerol	≥50 - ≤75	56-81-5
<b>NTP Mix</b> rATP	≤3	-
<b>5X Transcription Buffer</b> Polyethylene glycol 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	≥10 - ≤25 ≤3	25322-68-3 1185-53-1
<b>T7 RNA Polymerase Blend</b> Glycerol	≥50 - ≤75	56-81-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

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

## Section 4. First aid measures

### 4.1 Description of necessary first aid measures

<b>Eye contact</b>	: Nuclease-Free Water  T7 Primer  5X First Strand Buffer  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. 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. 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. 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.
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## Section 4. First aid measures

10 mM dNTP Mix	medical attention if irritation occurs. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
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. Continue to rinse for at least 10 minutes. Get medical attention.
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. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
Cyanine-3-CTP	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Cyanine-5-CTP	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
WT Primer 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.

### 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

## Section 4. First aid measures

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. 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. 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-3-CTP

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

Cyanine-5-CTP

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

WT Primer Mix

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



## Section 4. First aid measures

10 mM dNTP Mix	medical attention if symptoms occur. 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. Wash clothing before reuse. Clean shoes thoroughly before reuse.
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-3-CTP	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Cyanine-5-CTP	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
WT Primer Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
<b>Ingestion</b> : Nuclease-Free Water	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
T7 Primer	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
5X First Strand Buffer	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
0.1 M DTT	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

## Section 4. First aid measures

10 mM dNTP Mix	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
AffinityScript RT RNase Block Mix	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. 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.
NTP Mix	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
5X Transcription Buffer	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. 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.
T7 RNA Polymerase Blend	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. 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

## Section 4. First aid measures

Cyanine-3-CTP	medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Cyanine-5-CTP	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
WT Primer Mix	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

### 4.2 Most important symptoms/effects, acute and delayed

#### Potential acute health effects

<b>Eye contact</b>	: <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-3-CTP Cyanine-5-CTP WT Primer Mix	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. Causes serious eye irritation. Causes eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Inhalation</b>	: <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-3-CTP Cyanine-5-CTP WT Primer Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

## Section 4. First aid measures

<b>Skin contact</b>	: <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-3-CTP Cyanine-5-CTP WT Primer Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Ingestion</b>	: <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-3-CTP Cyanine-5-CTP WT Primer Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b><u>Over-exposure signs/symptoms</u></b>		
<b>Eye contact</b>	: <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-3-CTP Cyanine-5-CTP WT Primer Mix	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. Adverse symptoms may include the following: pain or irritation watering redness Adverse symptoms may include the following: irritation watering redness No specific data. No specific data. No specific data.
<b>Inhalation</b>	: <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-3-CTP Cyanine-5-CTP	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.

## Section 4. First aid measures

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

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

<b>Notes to physician</b>	: 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-3-CTP	Treat symptomatically. Contact poison treatment

## Section 4. First aid measures

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.

WT Primer Mix

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

### Specific treatments

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

No specific treatment.  
 No specific treatment.  
 No specific treatment.  
 No specific treatment.  
 No specific treatment.  
 No specific treatment.  
 No specific treatment.  
 No specific treatment.  
 No specific treatment.  
 No specific treatment.  
 No specific treatment.  
 No specific treatment.  
 No specific treatment.

### Protection of first-aiders

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

No action shall be taken involving any personal risk or without suitable training.  
 No action shall be taken involving any personal risk or without suitable training.  
 No action shall be taken involving any personal risk or without suitable training.  
 No action shall be taken involving any personal risk or without suitable training.  
 No action shall be taken involving any personal risk or without suitable training.  
 No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.  
 No action shall be taken involving any personal risk or without suitable training.  
 No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.  
 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.  
 No action shall be taken involving any personal risk or without suitable training.  
 No action shall be taken involving any personal risk or without suitable training.  
 No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	<b>:</b> 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-3-CTP	Use an extinguishing agent suitable for the surrounding fire.
	Cyanine-5-CTP	Use an extinguishing agent suitable for the surrounding fire.
	WT Primer Mix	Use an extinguishing agent suitable for the surrounding fire.


<b>Unsuitable extinguishing media</b>	<b>:</b> 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-3-CTP	None known.
	Cyanine-5-CTP	None known.
	WT Primer Mix	None known.

### 5.2 Special hazards arising from the substance or mixture

<b>Specific hazards arising from the chemical</b>	<b>:</b> 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.	


## Section 5. Fire-fighting measures

### Hazardous thermal decomposition products

Cyanine-3-CTP	In a fire or if heated, a pressure increase will occur and the container may burst.
Cyanine-5-CTP	In a fire or if heated, a pressure increase will occur and the container may burst.
WT Primer Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
:  Nuclease-Free Water T7 Primer 5X First Strand Buffer	No specific data. No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix	No specific data. No specific data. 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
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-3-CTP Cyanine-5-CTP WT Primer Mix	No specific data. No specific data. No specific data.

### 5.3 Advice for firefighters

#### 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 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



## Section 5. Fire-fighting measures

		from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	AffinityScript RT RNase Block Mix	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	NTP Mix	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	5X Transcription Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	T7 RNA Polymerase Blend	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	Cyanine-3-CTP	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	Cyanine-5-CTP	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	WT Primer 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.
<b>Special protective equipment for fire-fighters</b>	: 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.

## Section 5. Fire-fighting measures

5X Transcription Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
T7 RNA Polymerase Blend	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Cyanine-3-CTP	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Cyanine-5-CTP	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
WT Primer Mix	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

### 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 spilled 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 spilled 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 spilled 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 spilled 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 spilled 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 spilled material. Avoid

## Section 6. Accidental release measures

NTP Mix	breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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 spilled 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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Cyanine-3-CTP	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled 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 spilled material. Put on appropriate personal protective equipment.
WT Primer 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 spilled material. Put on appropriate personal protective equipment.
<b>For emergency responders</b> :  Nuclease-Free Water	If specialized 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 specialized 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 specialized 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 specialized clothing is required to deal with the

## Section 6. Accidental release measures

10 mM dNTP Mix	spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". If specialized 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 specialized 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 specialized 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 specialized 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 specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Cyanine-3-CTP	If specialized 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 specialized 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".
WT Primer Mix	If specialized 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 spilled 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 spilled 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 spilled 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 spilled 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 spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has

## Section 6. Accidental release measures

AffinityScript RT RNase Block Mix	caused environmental pollution (sewers, waterways, soil or air). Avoid dispersal of spilled 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 spilled 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 spilled 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 spilled 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-3-CTP	Avoid dispersal of spilled 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 spilled 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).
WT Primer Mix	Avoid dispersal of spilled 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 materials for containment and cleaning up

**Methods for cleaning up** :  Nuclease-Free Water



T7 Primer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
5X First Strand Buffer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
0.1 M DTT	Stop leak if without risk. Move containers from spill

## Section 6. Accidental release measures

	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-3-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.
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.
WT Primer 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.

## Section 7. Handling and storage

### 7.1 Precautions for safe handling

<b>Protective measures</b>	:  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 vapor 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). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor 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.
	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 vapor 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-3-CTP	Put on appropriate personal protective equipment (see Section 8).
	Cyanine-5-CTP	Put on appropriate personal protective equipment (see Section 8).
	WT Primer Mix	Put on appropriate personal protective equipment (see Section 8).
<b>Advice on general occupational hygiene</b>	:  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

## Section 7. Handling and storage

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



## Section 7. Handling and storage

WT Primer Mix

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.

### 7.2 Conditions for safe storage, including any incompatibilities

:  Nucleic Acid-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 unlabeled 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 unlabeled 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 unlabeled 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

10 mM dNTP Mix

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

## Section 7. Handling and storage

AffinityScript RT RNase Block Mix	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 unlabeled 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 unlabeled 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 unlabeled 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 unlabeled 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Cyanine-3-CTP	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled

## Section 7. Handling and storage

Cyanine-5-CTP

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 unlabeled 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

WT Primer Mix

### 7.3 Specific end use(s)

#### Recommendations

: <input checked="" type="checkbox"/>	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-3-CTP	Industrial applications, Professional applications.
	Cyanine-5-CTP	Industrial applications, Professional applications.
	WT Primer Mix	Industrial applications, Professional applications.

#### Industrial sector specific solutions

: <input checked="" type="checkbox"/>	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-3-CTP	Not applicable.
	Cyanine-5-CTP	Not applicable.
	WT Primer Mix	Not applicable.

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
<b>Nuclease-Free Water</b> Water	None.
<b>5X First Strand Buffer</b> Potassium chloride	None.
<b>AffinityScript RT RNase Block Mix</b> Glycerol	<b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Total dust <b>OSHA PEL (United States, 6/2016).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction TWA: 15 mg/m <sup>3</sup> 8 hours. Form: Total dust
<b>NTP Mix</b> rATP	None.
<b>5X Transcription Buffer</b> Polyethylene glycol  2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	<b>AIHA WEEL (United States, 10/2011).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Aerosol None.
<b>T7 RNA Polymerase Blend</b> Glycerol	<b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Total dust <b>OSHA PEL (United States, 6/2016).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction TWA: 15 mg/m <sup>3</sup> 8 hours. Form: Total dust

### 8.2 Exposure controls

#### 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.

## Section 8. Exposure controls/personal protection

- 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.
- 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

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	<input checked="" type="checkbox"/> 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-3-CTP	Liquid.
	Cyanine-5-CTP	Liquid.
	WT Primer Mix	Liquid.
	<b>Color</b>	<input checked="" type="checkbox"/> Nuclease-Free Water
T7 Primer		Not available.
5X First Strand Buffer		Not available.
0.1 M DTT		Not available.
10 mM dNTP Mix		Not available.
AffinityScript RT RNase Block Mix		Not available.
NTP Mix		Not available.
5X Transcription Buffer		Not available.
T7 RNA Polymerase Blend		Not available.
Cyanine-3-CTP		Not available.
Cyanine-5-CTP		Not available.
WT Primer Mix		Not available.

## Section 9. Physical and chemical properties

<b>Odor</b>	:	☑ Nuclease-Free Water	Odorless.
		T7 Primer	Not available.
		5X First Strand Buffer	Not available.
		0.1 M DTT	Not available.
		10 mM dNTP Mix	Not available.
		AffinityScript RT RNase Block Mix	Not available.
		NTP Mix	Not available.
		5X Transcription Buffer	Not available.
		T7 RNA Polymerase Blend	Not available.
		Cyanine-3-CTP	Not available.
		Cyanine-5-CTP	Not available.
WT Primer Mix	Not available.		
<b>Odor threshold</b>	:	☑ Nuclease-Free Water	Not available.
		T7 Primer	Not available.
		5X First Strand Buffer	Not available.
		0.1 M DTT	Not available.
		10 mM dNTP Mix	Not available.
		AffinityScript RT RNase Block Mix	Not available.
		NTP Mix	Not available.
		5X Transcription Buffer	Not available.
		T7 RNA Polymerase Blend	Not available.
		Cyanine-3-CTP	Not available.
		Cyanine-5-CTP	Not available.
WT Primer Mix	Not available.		
<b>pH</b>	:	☑ 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-3-CTP	7.6
		Cyanine-5-CTP	7.6
WT Primer Mix	7.5 to 8		
<b>Melting point</b>	:	☑ 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-3-CTP	0°C (32°F)
		Cyanine-5-CTP	0°C (32°F)
WT Primer Mix	0°C (32°F)		
<b>Boiling point</b>	:	☑ 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.		

## Section 9. Physical and chemical properties

	Cyanine-3-CTP	100°C (212°F)
	Cyanine-5-CTP	100°C (212°F)
	WT Primer Mix	100°C (212°F)
<b>Flash point</b>	: Nuclease-Free Water	Not applicable.
	T7 Primer	Not available.
	5X First Strand Buffer	Not available.
	0.1 M DTT	Not available.
	10 mM dNTP Mix	Not available.
	AffinityScript RT RNase Block Mix	Not available.
	NTP Mix	Not available.
	5X Transcription Buffer	Not available.
	T7 RNA Polymerase Blend	Not available.
	Cyanine-3-CTP	Not available.
	Cyanine-5-CTP	Not available.
	WT Primer Mix	Not available.
<b>Evaporation rate</b>	: Nuclease-Free Water	Not available.
	T7 Primer	Not available.
	5X First Strand Buffer	Not available.
	0.1 M DTT	Not available.
	10 mM dNTP Mix	Not available.
	AffinityScript RT RNase Block Mix	Not available.
	NTP Mix	Not available.
	5X Transcription Buffer	Not available.
	T7 RNA Polymerase Blend	Not available.
	Cyanine-3-CTP	Not available.
	Cyanine-5-CTP	Not available.
	WT Primer Mix	Not available.
<b>Flammability (solid, gas)</b>	: 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-3-CTP	Not applicable.
	Cyanine-5-CTP	Not applicable.
	WT Primer Mix	Not applicable.
<b>Lower and upper explosive (flammable) limits</b>	: Nuclease-Free Water	Not available.
	T7 Primer	Not available.
	5X First Strand Buffer	Not available.
	0.1 M DTT	Not available.
	10 mM dNTP Mix	Not available.
	AffinityScript RT RNase Block Mix	Not available.
	NTP Mix	Not available.
	5X Transcription Buffer	Not available.
	T7 RNA Polymerase Blend	Not available.
	Cyanine-3-CTP	Not available.
	Cyanine-5-CTP	Not available.
	WT Primer Mix	Not available.

## Section 9. Physical and chemical properties

<b>Vapor pressure</b>	<input checked="" type="checkbox"/> Nuclease-Free Water	3.2 kPa (23.8 mm Hg) [room temperature]
	T7 Primer	Not available.
	5X First Strand Buffer	Not available.
	0.1 M DTT	Not available.
	10 mM dNTP Mix	Not available.
	AffinityScript RT RNase Block Mix	Not available.
	NTP Mix	Not available.
	5X Transcription Buffer	Not available.
	T7 RNA Polymerase Blend	Not available.
	Cyanine-3-CTP	Not available.
	Cyanine-5-CTP	Not available.
WT Primer Mix	Not available.	
<b>Vapor density</b>	<input checked="" type="checkbox"/> Nuclease-Free Water	0.62 [Air = 1]
	T7 Primer	Not available.
	5X First Strand Buffer	Not available.
	0.1 M DTT	Not available.
	10 mM dNTP Mix	Not available.
	AffinityScript RT RNase Block Mix	Not available.
	NTP Mix	Not available.
	5X Transcription Buffer	Not available.
	T7 RNA Polymerase Blend	Not available.
	Cyanine-3-CTP	Not available.
	Cyanine-5-CTP	Not available.
WT Primer Mix	Not available.	
<b>Relative density</b>	<input checked="" type="checkbox"/> Nuclease-Free Water	1
	T7 Primer	Not available.
	5X First Strand Buffer	Not available.
	0.1 M DTT	Not available.
	10 mM dNTP Mix	Not available.
	AffinityScript RT RNase Block Mix	Not available.
	NTP Mix	Not available.
	5X Transcription Buffer	Not available.
	T7 RNA Polymerase Blend	Not available.
	Cyanine-3-CTP	Not available.
	Cyanine-5-CTP	Not available.
WT Primer Mix	Not available.	
<b>Solubility</b>	<input checked="" type="checkbox"/> Nuclease-Free Water	Easily soluble in the following materials: cold water and hot water.
	T7 Primer	Easily soluble in the following materials: cold water and hot water.
	5X First Strand Buffer	Soluble in the following materials: cold water and hot water.
	0.1 M DTT	Easily soluble in the following materials: cold water and hot water.
	10 mM dNTP Mix	Easily soluble in the following materials: cold water and hot water.
	AffinityScript RT RNase Block Mix	Soluble in the following materials: cold water and hot water.
	NTP Mix	Easily soluble in the following materials: cold water and hot water.
	5X Transcription Buffer	Easily soluble in the following materials: cold water and hot water.
	T7 RNA Polymerase Blend	Soluble in the following materials: cold water and hot water.
	Cyanine-3-CTP	Easily soluble in the following materials: cold water and hot water.
	Cyanine-5-CTP	Easily soluble in the following materials: cold water and hot water.



## Section 9. Physical and chemical properties

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

## Section 10. Stability and reactivity

<b>10.1 Reactivity</b>	: <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-3-CTP Cyanine-5-CTP WT Primer Mix	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: <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-3-CTP Cyanine-5-CTP WT Primer Mix	The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: <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-3-CTP	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.

## Section 10. Stability and reactivity

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

**10.4 Conditions to avoid** :

<ul style="list-style-type: none"> <li>☒ Nuclease-Free Water</li> <li>T7 Primer</li> <li>5X First Strand Buffer</li> <li>0.1 M DTT</li> <li>10 mM dNTP Mix</li> <li>AffinityScript RT RNase Block Mix</li> <li>NTP Mix</li> <li>5X Transcription Buffer</li> <li>T7 RNA Polymerase Blend</li> <li>Cyanine-3-CTP</li> <li>Cyanine-5-CTP</li> <li>WT Primer Mix</li> </ul>	<ul style="list-style-type: none"> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> </ul>
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**10.5 Incompatible materials** :

<ul style="list-style-type: none"> <li>☒ Nuclease-Free Water</li> <li>T7 Primer</li> <li>5X First Strand Buffer</li> <li>0.1 M DTT</li> <li>10 mM dNTP Mix</li> <li>AffinityScript RT RNase Block Mix</li> <li>NTP Mix</li> <li>5X Transcription Buffer</li> <li>T7 RNA Polymerase Blend</li> <li>Cyanine-3-CTP</li> <li>Cyanine-5-CTP</li> <li>WT Primer Mix</li> </ul>	<ul style="list-style-type: none"> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> </ul>
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**10.6 Hazardous decomposition products** :

<ul style="list-style-type: none"> <li>☒ Nuclease-Free Water</li> <li>T7 Primer</li> <li>5X First Strand Buffer</li> <li>0.1 M DTT</li> <li>10 mM dNTP Mix</li> </ul>	<ul style="list-style-type: none"> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> <li>Under normal conditions of storage and use,</li> </ul>
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## Section 10. Stability and reactivity

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-3-CTP	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.
WT Primer Mix	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

Product/ingredient name	Result	Species	Dose	Exposure
<b>5X First Strand Buffer</b> Potassium chloride	LD50 Oral	Rat	2600 mg/kg	-
<b>AffinityScript RT RNase Block Mix</b> Glycerol	LD50 Oral	Rat	12600 mg/kg	-
<b>T7 RNA Polymerase Blend</b> Glycerol	LD50 Oral	Rat	12600 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>5X First Strand Buffer</b> Potassium chloride	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
<b>AffinityScript RT RNase Block Mix</b> Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
<b>5X Transcription Buffer</b> Polyethylene glycol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	500 milligrams	-

## Section 11. Toxicological information

T7 RNA Polymerase Blend Glycerol	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
<b>5X Transcription Buffer</b> 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	Category 3	Not applicable.	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

### Information on the likely routes of exposure

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

### Potential acute health effects

## Section 11. Toxicological information

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

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Eye contact</b>	: Nuclease-Free Water T7 Primer 5X First Strand Buffer 0.1 M DTT 10 mM dNTP Mix AffinityScript RT RNase Block Mix	No specific data. No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: irritation watering
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## Section 11. Toxicological information

	NTP Mix	redness
	5X Transcription Buffer	No specific data.
		Adverse symptoms may include the following:
		pain or irritation
		watering
		redness
	T7 RNA Polymerase Blend	Adverse symptoms may include the following:
		irritation
		watering
		redness
	Cyanine-3-CTP	No specific data.
	Cyanine-5-CTP	No specific data.
	WT Primer Mix	No specific data.
<b>Inhalation</b>	: Nuclease-Free Water	No specific data.
	T7 Primer	No specific data.
	5X First Strand Buffer	No specific data.
	0.1 M DTT	No specific data.
	10 mM dNTP Mix	No specific data.
	AffinityScript RT RNase Block Mix	No specific data.
	NTP Mix	No specific data.
	5X Transcription Buffer	No specific data.
	T7 RNA Polymerase Blend	No specific data.
	Cyanine-3-CTP	No specific data.
	Cyanine-5-CTP	No specific data.
	WT Primer Mix	No specific data.
<b>Skin contact</b>	: Nuclease-Free Water	No specific data.
	T7 Primer	No specific data.
	5X First Strand Buffer	No specific data.
	0.1 M DTT	No specific data.
	10 mM dNTP Mix	No specific data.
	AffinityScript RT RNase Block Mix	No specific data.
	NTP Mix	No specific data.
	5X Transcription Buffer	No specific data.
	T7 RNA Polymerase Blend	No specific data.
	Cyanine-3-CTP	No specific data.
	Cyanine-5-CTP	No specific data.
	WT Primer Mix	No specific data.
<b>Ingestion</b>	: Nuclease-Free Water	No specific data.
	T7 Primer	No specific data.
	5X First Strand Buffer	No specific data.
	0.1 M DTT	No specific data.
	10 mM dNTP Mix	No specific data.
	AffinityScript RT RNase Block Mix	No specific data.
	NTP Mix	No specific data.
	5X Transcription Buffer	No specific data.
	T7 RNA Polymerase Blend	No specific data.
	Cyanine-3-CTP	No specific data.
	Cyanine-5-CTP	No specific data.
	WT Primer Mix	No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure





## Section 11. Toxicological information

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

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
5X First Strand Buffer Oral	92526.7 mg/kg

## Section 12. Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
5X First Strand Buffer Potassium chloride	Acute EC50 1337000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 9.24 g/L Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 141460 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 12.92 mg/l Fresh water	Crustaceans - Pseudosida ramosa - Neonate	48 hours
AffinityScript RT RNase Block Mix Glycerol	Acute LC50 880000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
5X Transcription Buffer Polyethylene glycol	Acute LC50 >1000000 µg/l Fresh water	Fish - Salmo salar - Parr	96 hours
T7 RNA Polymerase Blend Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

## Section 12. Ecological information

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
<b>Nuclease-Free Water</b> Water	-	100 % - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>Nuclease-Free Water</b> Water	-	-	Readily
<b>5X First Strand Buffer</b> Potassium chloride	-	-	Readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>Nuclease-Free Water</b> Water	-1.38	-	low
<b>5X First Strand Buffer</b> Potassium chloride	-0.46	-	low
<b>AffinityScript RT RNase Block Mix</b> Glycerol	-1.76	-	low
<b>5X Transcription Buffer</b> Polyethylene glycol	-	3.2	low
<b>T7 RNA Polymerase Blend</b> Glycerol	-1.76	-	low

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**12.5 Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

### 13.1 Waste treatment methods

**Disposal methods** : The generation of waste should be avoided or minimized 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 13. Disposal considerations

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## Section 14. Transport information

**DOT / TDG / Mexico / IMDG / IATA** : Not regulated.

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

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

## Section 15. Regulatory information

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

**U.S. Federal regulations** : **TSCA 8(a) PAIR:** Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-; Polyoxyethylene octyl phenyl ether  
**TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**Clean Water Act (CWA) 311:** Edetic acid

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

## Section 15. Regulatory information

<b>Classification</b>	: <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-3-CTP Cyanine-5-CTP WT Primer Mix	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Immediate (acute) health hazard Not applicable. Immediate (acute) health hazard Immediate (acute) health hazard Not applicable. Not applicable. Not applicable.
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### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
<b>5X First Strand Buffer</b> Potassium chloride	≤3	No.	No.	No.	Yes.	No.
<b>AffinityScript RT RNase Block Mix</b> Glycerol	≥50 - ≤75	No.	No.	No.	Yes.	No.
<b>NTP Mix</b> rATP	≤3	No.	No.	No.	Yes.	No.
<b>5X Transcription Buffer</b> Polyethylene glycol	≥10 - ≤25	No.	No.	No.	Yes.	No.
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	≤3	No.	No.	No.	Yes.	No.
<b>T7 RNA Polymerase Blend</b> Glycerol	≥50 - ≤75	No.	No.	No.	Yes.	No.

### State regulations

<b>Massachusetts</b>	: The following components are listed: GLYCERINE MIST
<b>New York</b>	: None of the components are listed.
<b>New Jersey</b>	: The following components are listed: GLYCERIN; 1,2,3-PROPANETRIOL
<b>Pennsylvania</b>	: The following components are listed: 1,2,3-PROPANETRIOL
<b>California Prop. 65</b>	

Not available.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

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

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

## Section 15. Regulatory information

Not listed.

### Inventory list

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

## Section 16. Other information

### History

<b>Date of issue</b>	: 06/30/2017
<b>Date of previous issue</b>	: 11/05/2014.
<b>Version</b>	: 4

Indicates information that has changed from previously issued version.

### Notice to reader

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