# SAFETY DATA SHEET

Agilent Technologies

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

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

### 1.1 Product identifier

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

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

**Part No.** :

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

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

| Identified uses | |
|---|---|
| Analytical reagent. | |
| 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

Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

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

### 1.4 Emergency telephone number

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

# SECTION 2: Hazards identification

## 2.1 Classification of the substance or mixture

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

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

Not classified.

| | | | |
|---|---|---|---|
| **Ingredients of unknown toxicity** | : | 5X First Strand Buffer | Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%<br>Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: > 60% |
| | | AffinityScript RT RNase Block Mix | Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60% |
| | | NTP Mix | Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%<br>Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%<br>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%<br>Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%<br>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% |
| **Ingredients of unknown ecotoxicity** | : | NTP Mix | Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 4% |
| | | 5X Transcription Buffer | Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1.7% |

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

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

## 2.2 Label elements

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

## SECTION 2: Hazards identification

| | | | |
|---|---|---|---|
| | | WT Primer Mix | No signal word. |
| **Hazard statements** | : | Nuclease-Free Water | No known significant effects or critical hazards. |
| | | T7 Primer | No known significant effects or critical hazards. |
| | | 5X First Strand Buffer | No known significant effects or critical hazards. |
| | | 0.1 M DTT | No known significant effects or critical hazards. |
| | | 10 mM dNTP Mix | No known significant effects or critical hazards. |
| | | AffinityScript RT RNase Block Mix | No known significant effects or critical hazards. |
| | | NTP Mix | No known significant effects or critical hazards. |
| | | 5X Transcription Buffer | No known significant effects or critical hazards. |
| | | T7 RNA Polymerase Blend | No known significant effects or critical hazards. |
| | | Cyanine-3-CTP | No known significant effects or critical hazards. |
| | | Cyanine-5-CTP | No known significant effects or critical hazards. |
| | | WT Primer Mix | No known significant effects or critical hazards. |
| **Precautionary statements** | | | |
| **Prevention** | : | Nuclease-Free Water | Not applicable. |
| | | T7 Primer | Not applicable. |
| | | 5X First Strand Buffer | Not applicable. |
| | | 0.1 M DTT | Not applicable. |
| | | 10 mM dNTP Mix | Not applicable. |
| | | AffinityScript RT RNase Block Mix | Not applicable. |
| | | NTP Mix | Not applicable. |
| | | 5X Transcription Buffer | Not applicable. |
| | | T7 RNA Polymerase Blend | Not applicable. |
| | | Cyanine-3-CTP | Not applicable. |
| | | Cyanine-5-CTP | Not applicable. |
| | | WT Primer Mix | Not applicable. |
| **Response** | : | Nuclease-Free Water | Not applicable. |
| | | T7 Primer | Not applicable. |
| | | 5X First Strand Buffer | Not applicable. |
| | | 0.1 M DTT | Not applicable. |
| | | 10 mM dNTP Mix | Not applicable. |
| | | AffinityScript RT RNase Block Mix | Not applicable. |
| | | NTP Mix | Not applicable. |
| | | 5X Transcription Buffer | Not applicable. |
| | | T7 RNA Polymerase Blend | Not applicable. |
| | | Cyanine-3-CTP | Not applicable. |
| | | Cyanine-5-CTP | Not applicable. |
| | | WT Primer Mix | Not applicable. |
| **Storage** | : | Nuclease-Free Water | Not applicable. |
| | | T7 Primer | Not applicable. |
| | | 5X First Strand Buffer | Not applicable. |
| | | 0.1 M DTT | Not applicable. |
| | | 10 mM dNTP Mix | Not applicable. |
| | | AffinityScript RT RNase Block Mix | Not applicable. |
| | | NTP Mix | Not applicable. |
| | | 5X Transcription Buffer | Not applicable. |
| | | T7 RNA Polymerase Blend | Not applicable. |
| | | Cyanine-3-CTP | Not applicable. |
| | | Cyanine-5-CTP | Not applicable. |
| | | WT Primer Mix | Not applicable. |

## SECTION 2: Hazards identification

| | | | |
|---|---|---|---|
| **Disposal** | : | Nuclease-Free Water | Not applicable. |
| | | T7 Primer | Not applicable. |
| | | 5X First Strand Buffer | Not applicable. |
| | | 0.1 M DTT | Not applicable. |
| | | 10 mM dNTP Mix | Not applicable. |
| | | AffinityScript RT RNase Block Mix | Not applicable. |
| | | NTP Mix | Not applicable. |
| | | 5X Transcription Buffer | Not applicable. |
| | | T7 RNA Polymerase Blend | Not applicable. |
| | | Cyanine-3-CTP | Not applicable. |
| | | Cyanine-5-CTP | Not applicable. |
| | | WT Primer Mix | Not applicable. |
| **Hazardous ingredients** | : | 5X Transcription Buffer | Not applicable. |
| **Supplemental label elements** | : | Nuclease-Free Water | Not applicable. |
| | | T7 Primer | Not applicable. |
| | | 5X First Strand Buffer | Not applicable. |
| | | 0.1 M DTT | Not applicable. |
| | | 10 mM dNTP Mix | Not applicable. |
| | | AffinityScript RT RNase Block Mix | Not applicable. |
| | | NTP Mix | Not applicable. |
| | | 5X Transcription Buffer | Safety data sheet available on request. |
| | | T7 RNA Polymerase Blend | Not applicable. |
| | | Cyanine-3-CTP | Not applicable. |
| | | Cyanine-5-CTP | Not applicable. |
| | | WT Primer Mix | Not applicable. |
| **Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** | : | Nuclease-Free Water | Not applicable. |
| | | T7 Primer | Not applicable. |
| | | 5X First Strand Buffer | Not applicable. |
| | | 0.1 M DTT | Not applicable. |
| | | 10 mM dNTP Mix | Not applicable. |
| | | AffinityScript RT RNase Block Mix | Not applicable. |
| | | NTP Mix | Not applicable. |
| | | 5X Transcription Buffer | Not applicable. |
| | | T7 RNA Polymerase Blend | Not applicable. |
| | | Cyanine-3-CTP | Not applicable. |
| | | Cyanine-5-CTP | Not applicable. |
| | | WT Primer Mix | Not applicable. |

**Special packaging requirements**

| | | | |
|---|---|---|---|
| **Tactile warning of danger** | : | Nuclease-Free Water | Not applicable. |
| | | T7 Primer | Not applicable. |
| | | 5X First Strand Buffer | Not applicable. |
| | | 0.1 M DTT | Not applicable. |
| | | 10 mM dNTP Mix | Not applicable. |
| | | AffinityScript RT RNase Block Mix | Not applicable. |
| | | NTP Mix | Not applicable. |
| | | 5X Transcription Buffer | Not applicable. |
| | | T7 RNA Polymerase Blend | Not applicable. |
| | | Cyanine-3-CTP | Not applicable. |
| | | Cyanine-5-CTP | Not applicable. |
| | | WT Primer Mix | Not applicable. |

### 2.3 Other hazards

## SECTION 2: Hazards identification

| | | | |
|---|---|---|---|
| **Other hazards which do not result in classification** | : | Nuclease-Free Water | None known. |
| | | T7 Primer | None known. |
| | | 5X First Strand Buffer | None known. |
| | | 0.1 M DTT | None known. |
| | | 10 mM dNTP Mix | None known. |
| | | AffinityScript RT RNase Block Mix | None known. |
| | | NTP Mix | None known. |
| | | 5X Transcription Buffer | None known. |
| | | T7 RNA Polymerase Blend | None known. |
| | | Cyanine-3-CTP | None known. |
| | | Cyanine-5-CTP | None known. |
| | | WT Primer Mix | None known. |

## SECTION 3: Composition/information on ingredients

| | | | |
|---|---|---|---|
| **3.1 Substances** | : | Nuclease-Free Water | Mono-constituent substance |
| | | T7 Primer | Mixture |
| | | 5X First Strand Buffer | Mixture |
| | | 0.1 M DTT | Mixture |
| | | 10 mM dNTP Mix | Mixture |
| | | AffinityScript RT RNase Block Mix | Mixture |
| | | NTP Mix | Mixture |
| | | 5X Transcription Buffer | Mixture |
| | | T7 RNA Polymerase Blend | Mixture |
| | | Cyanine-3-CTP | Mixture |
| | | Cyanine-5-CTP | Mixture |
| | | WT Primer Mix | Mixture |

| Product/ingredient name | Identifiers | % | Regulation (EC) No. 1272/2008 [CLP] | Type |
|---|---|---|---|---|
| **Nuclease-Free Water** | | | | |
| Water | REACH #: Annex IV<br>EC: 231-791-2<br>CAS: 7732-18-5 | 100 | Not classified. | [A] |
| **AffinityScript RT RNase Block Mix** | | | | |
| Glycerol | REACH #: Annex V<br>EC: 200-289-5<br>CAS: 56-81-5 | ≥50 - ≤75 | Not classified. | [2] |
| **5X Transcription Buffer** | | | | |
| 2-Amino-2-(hydroxymethyl) propane-1,3-diol hydrochloride | EC: 214-684-5<br>CAS: 1185-53-1 | ≤3 | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>STOT SE 3, H335 | [1] |
| **T7 RNA Polymerase Blend** | | | | |
| Glycerol | REACH #: Annex V<br>EC: 200-289-5<br>CAS: 56-81-5 | ≥50 - ≤75 | Not classified. | [2] |
| | | | **See Section 16 for the full text of the H statements declared above.** | |

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

Type

## SECTION 3: Composition/information on ingredients

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
[5] Substance of equivalent concern
[6] Additional disclosure due to company policy
[A] Constituent
[B] Impurity
[C] Stabilising additive

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

| | | | |
|---|---|---|---|
| **Eye contact** | : | Nuclease-Free Water | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. |
| | | T7 Primer | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. |
| | | 5X First Strand Buffer | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. |
| | | 0.1 M DTT | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. |
| | | 10 mM dNTP Mix | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. |
| | | AffinityScript RT RNase Block Mix | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. |
| | | NTP Mix | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. |
| | | 5X Transcription Buffer | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. |
| | | T7 RNA Polymerase Blend | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. |
| | | Cyanine-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 |

## SECTION 4: First aid measures

| | | |
|---|---|---|
| | | comfortable for breathing. Get medical attention if symptoms occur. |
| | AffinityScript RT RNase Block Mix | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
| | NTP Mix | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| | 5X Transcription Buffer | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| | T7 RNA Polymerase Blend | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
| | Cyanine-3-CTP | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
| | Cyanine-5-CTP | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
| | 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 medical attention if symptoms occur. |
| | 10 mM dNTP Mix | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| | AffinityScript RT RNase Block Mix | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| | NTP Mix | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| | 5X Transcription Buffer | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| | T7 RNA Polymerase Blend | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| | Cyanine-3-CTP | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| | Cyanine-5-CTP | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |

## SECTION 4: First aid measures

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

## SECTION 4: First aid measures

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|---|---|---|---|
| | | Cyanine-5-CTP | personnel. Get medical attention if symptoms occur.<br>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. |
| **Protection of first-aiders** | : | Nuclease-Free Water | No action shall be taken involving any personal risk or without suitable training. |
| | | T7 Primer | No action shall be taken involving any personal risk or without suitable training. |
| | | 5X First Strand Buffer | No action shall be taken involving any personal risk or without suitable training. |
| | | 0.1 M DTT | No action shall be taken involving any personal risk or without suitable training. |
| | | 10 mM dNTP Mix | No action shall be taken involving any personal risk or without suitable training. |
| | | AffinityScript RT RNase Block Mix | No action shall be taken involving any personal risk or without suitable training. |
| | | NTP Mix | No action shall be taken involving any personal risk or without suitable training. |
| | | 5X Transcription Buffer | No action shall be taken involving any personal risk or without suitable training. |
| | | T7 RNA Polymerase Blend | No action shall be taken involving any personal risk or without suitable training. |
| | | Cyanine-3-CTP | No action shall be taken involving any personal risk or without suitable training. |
| | | Cyanine-5-CTP | No action shall be taken involving any personal risk or without suitable training. |
| | | WT Primer Mix | No action shall be taken involving any personal risk or without suitable training. |

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

**Potential acute health effects**

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

## SECTION 4: First aid measures

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

**Over-exposure signs/symptoms**

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

## SECTION 4: First aid measures

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

### 4.3 Indication of any immediate medical attention and special treatment needed

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

## SECTION 4: First aid measures

| | | |
|---|---|---|
| | | to be kept under medical surveillance for 48 hours. |
| | T7 RNA Polymerase Blend | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| | Cyanine-3-CTP | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| | Cyanine-5-CTP | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| | WT Primer Mix | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| **Specific treatments** : | Nuclease-Free Water | No specific treatment. |
| | T7 Primer | No specific treatment. |
| | 5X First Strand Buffer | No specific treatment. |
| | 0.1 M DTT | No specific treatment. |
| | 10 mM dNTP Mix | No specific treatment. |
| | AffinityScript RT RNase Block Mix | No specific treatment. |
| | NTP Mix | No specific treatment. |
| | 5X Transcription Buffer | No specific treatment. |
| | T7 RNA Polymerase Blend | No specific treatment. |
| | Cyanine-3-CTP | No specific treatment. |
| | Cyanine-5-CTP | No specific treatment. |
| | WT Primer Mix | No specific treatment. |

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

| | | |
|---|---|---|
| **Suitable extinguishing media** : | Nuclease-Free Water | Use an extinguishing agent suitable for the surrounding fire. |
| | T7 Primer | Use an extinguishing agent suitable for the surrounding fire. |
| | 5X First Strand Buffer | Use an extinguishing agent suitable for the surrounding fire. |
| | 0.1 M DTT | Use an extinguishing agent suitable for the surrounding fire. |
| | 10 mM dNTP Mix | Use an extinguishing agent suitable for the surrounding fire. |
| | AffinityScript RT RNase Block Mix | Use an extinguishing agent suitable for the surrounding fire. |
| | NTP Mix | Use an extinguishing agent suitable for the surrounding fire. |
| | 5X Transcription Buffer | Use an extinguishing agent suitable for the surrounding fire. |
| | T7 RNA Polymerase Blend | Use an extinguishing agent suitable for the surrounding fire. |
| | Cyanine-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. |
| **Unsuitable extinguishing media** : | Nuclease-Free Water | None known. |
| | T7 Primer | None known. |
| | 5X First Strand Buffer | None known. |
| | 0.1 M DTT | None known. |
| | 10 mM dNTP Mix | None known. |
| | AffinityScript RT RNase Block Mix | None known. |
| | NTP Mix | None known. |
| | 5X Transcription Buffer | None known. |
| | T7 RNA Polymerase Blend | None known. |
| | Cyanine-3-CTP | None known. |
| | Cyanine-5-CTP | None known. |
| | WT Primer Mix | None known. |

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

## SECTION 5: Firefighting measures

| | | | |
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| **Hazards from the substance or mixture** | : | Nuclease-Free Water | In a fire or if heated, a pressure increase will occur and the container may burst. |
| | | T7 Primer | In a fire or if heated, a pressure increase will occur and the container may burst. |
| | | 5X First Strand Buffer | In a fire or if heated, a pressure increase will occur and the container may burst. |
| | | 0.1 M DTT | In a fire or if heated, a pressure increase will occur and the container may burst. |
| | | 10 mM dNTP Mix | In a fire or if heated, a pressure increase will occur and the container may burst. |
| | | AffinityScript RT RNase Block Mix | In a fire or if heated, a pressure increase will occur and the container may burst. |
| | | NTP Mix | In a fire or if heated, a pressure increase will occur and the container may burst. |
| | | 5X Transcription Buffer | In a fire or if heated, a pressure increase will occur and the container may burst. |
| | | T7 RNA Polymerase Blend | In a fire or if heated, a pressure increase will occur and the container may burst. |
| | | Cyanine-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. |
| **Hazardous combustion products** | : | Nuclease-Free Water | No specific data. |
| | | T7 Primer | No specific data. |
| | | 5X First Strand Buffer | Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>halogenated compounds<br>metal oxide/oxides |
| | | 0.1 M DTT | No specific data. |
| | | 10 mM dNTP Mix | No specific data. |
| | | AffinityScript RT RNase Block Mix | Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide |
| | | NTP Mix | Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>nitrogen oxides<br>phosphorus oxides |
| | | 5X Transcription Buffer | Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>nitrogen oxides<br>halogenated compounds |
| | | T7 RNA Polymerase Blend | Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide |
| | | Cyanine-3-CTP | No specific data. |
| | | Cyanine-5-CTP | No specific data. |
| | | WT Primer Mix | No specific data. |

### 5.3 Advice for firefighters

## SECTION 5: Firefighting measures

| | | | |
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| **Special precautions for fire-fighters** | : | Nuclease-Free Water | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| | | T7 Primer | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| | | 5X First Strand Buffer | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| | | 0.1 M DTT | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| | | 10 mM dNTP Mix | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| | | AffinityScript RT RNase Block Mix | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| | | NTP Mix | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| | | 5X Transcription Buffer | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| | | T7 RNA Polymerase Blend | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| | | Cyanine-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. |
| **Special protective equipment for fire-fighters** | : | Nuclease-Free Water | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |
| | | T7 Primer | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |
| | | 5X First Strand Buffer | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |
| | | 0.1 M DTT | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |
| | | 10 mM dNTP Mix | Fire-fighters should wear appropriate protective equipment |

## SECTION 5: Firefighting measures

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| | and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |
| AffinityScript RT RNase Block Mix | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |
| NTP Mix | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |
| 5X Transcription Buffer | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |
| T7 RNA Polymerase Blend | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |
| Cyanine-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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |
| Cyanine-5-CTP | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |
| 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

| | | |
|---|---|---|
| **For non-emergency personnel** | : Nuclease-Free Water | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. |
| | T7 Primer | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. |
| | 5X First Strand Buffer | No action shall be taken involving any personal risk or |

## SECTION 6: Accidental release measures

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

## SECTION 6: Accidental release measures

| | | |
|---|---|---|
| | 0.1 M DTT | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| | 10 mM dNTP Mix | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| | AffinityScript RT RNase Block Mix | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| | NTP Mix | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| | 5X Transcription Buffer | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| | T7 RNA Polymerase Blend | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| | Cyanine-3-CTP | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| | Cyanine-5-CTP | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| | WT Primer Mix | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| **6.2 Environmental precautions** : | Nuclease-Free Water | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |
| | T7 Primer | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |
| | 5X First Strand Buffer | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |
| | 0.1 M DTT | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |
| | 10 mM dNTP Mix | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |
| | AffinityScript RT RNase Block Mix | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |
| | NTP Mix | Avoid dispersal of spilt material and runoff and contact with |

## SECTION 6: Accidental release measures

| | |
|---|---|
| | soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |
| 5X Transcription Buffer | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |
| T7 RNA Polymerase Blend | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |
| Cyanine-3-CTP | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |
| Cyanine-5-CTP | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |
| WT Primer Mix | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |

### 6.3 Methods and material for containment and cleaning up

| | | |
|---|---|---|
| **Methods for cleaning up** : | Nuclease-Free Water | Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |
| | T7 Primer | Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |
| | 5X First Strand Buffer | Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |
| | 0.1 M DTT | Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |
| | 10 mM dNTP Mix | Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |
| | AffinityScript RT RNase Block Mix | Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |
| | NTP Mix | Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |
| | 5X Transcription Buffer | Stop leak if without risk. Move containers from spill area. |

## SECTION 6: Accidental release measures

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| | 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. |

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

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

**Protective measures** :

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

## SECTION 7: Handling and storage

| | | | |
|---|---|---|---|
| **Advice on general occupational hygiene** | : | Nuclease-Free Water | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |
| | | T7 Primer | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |
| | | 5X First Strand Buffer | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |
| | | 0.1 M DTT | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |
| | | 10 mM dNTP Mix | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |
| | | AffinityScript RT RNase Block Mix | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |
| | | NTP Mix | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |
| | | 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. |

## SECTION 7: Handling and storage

| | | |
|---|---|---|
| | | 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. |
| | WT Primer 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. |

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

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

## SECTION 7: Handling and storage

| | |
|---|---|
| | before handling or use. |
| AffinityScript RT RNase Block Mix | Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. |
| NTP Mix | Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. |
| 5X Transcription Buffer | Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. |
| T7 RNA Polymerase Blend | Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. |
| Cyanine-3-CTP | Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. |
| Cyanine-5-CTP | Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. |
| WT Primer Mix | Store in accordance with local regulations. Store in original |

## SECTION 7: Handling and storage

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

### 7.3 Specific end use(s)

| | | | |
|---|---|---|---|
| **Recommendations** | : | Nuclease-Free Water | Industrial applications, Professional applications. |
| | | T7 Primer | Industrial applications, Professional applications. |
| | | 5X First Strand Buffer | Industrial applications, Professional applications. |
| | | 0.1 M DTT | Industrial applications, Professional applications. |
| | | 10 mM dNTP Mix | Industrial applications, Professional applications. |
| | | AffinityScript RT RNase Block Mix | Industrial applications, Professional applications. |
| | | NTP Mix | Industrial applications, Professional applications. |
| | | 5X Transcription Buffer | Industrial applications, Professional applications. |
| | | T7 RNA Polymerase Blend | Industrial applications, Professional applications. |
| | | Cyanine-3-CTP | Industrial applications, Professional applications. |
| | | Cyanine-5-CTP | Industrial applications, Professional applications. |
| | | WT Primer Mix | Industrial applications, Professional applications. |
| **Industrial sector specific solutions** | : | 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**

| Product/ingredient name | Exposure limit values |
|---|---|
| **AffinityScript RT RNase Block Mix**<br>Glycerol | **EH40/2005 WELs (United Kingdom (UK), 12/2011).**<br>TWA: 10 mg/m³ 8 hours. Form: Mist |
| **T7 RNA Polymerase Blend**<br>Glycerol | **EH40/2005 WELs (United Kingdom (UK), 12/2011).**<br>TWA: 10 mg/m³ 8 hours. Form: Mist |

## SECTION 8: Exposure controls/personal protection

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**

No DNELs/DMELs available.

**PNECs**

No PNECs available

### 8.2 Exposure controls

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

**Individual protection measures**

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

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

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

# SECTION 9: Physical and chemical properties

## 9.1 Information on basic physical and chemical properties

**Appearance**

| | | | |
|---|---|---|---|
| **Physical state** | : | Nuclease-Free Water | Liquid. |
| | | T7 Primer | Liquid. |
| | | 5X First Strand Buffer | Liquid. |
| | | 0.1 M DTT | Liquid. |
| | | 10 mM dNTP Mix | Liquid. |
| | | AffinityScript RT RNase Block Mix | Liquid. |
| | | NTP Mix | Liquid. |
| | | 5X Transcription Buffer | Liquid. |
| | | T7 RNA Polymerase Blend | Liquid. |
| | | Cyanine-3-CTP | Liquid. |
| | | Cyanine-5-CTP | Liquid. |
| | | WT Primer Mix | Liquid. |
| **Colour** | : | Nuclease-Free Water | Colourless. |
| | | T7 Primer | Not available. |
| | | 5X First Strand Buffer | Not available. |
| | | 0.1 M DTT | Not available. |
| | | 10 mM dNTP Mix | Not available. |
| | | AffinityScript RT RNase Block Mix | Not available. |
| | | NTP Mix | Not available. |
| | | 5X Transcription Buffer | Not available. |
| | | T7 RNA Polymerase Blend | Not available. |
| | | Cyanine-3-CTP | Not available. |
| | | Cyanine-5-CTP | Not available. |
| | | WT Primer Mix | Not available. |
| **Odour** | : | Nuclease-Free Water | Odourless. |
| | | T7 Primer | Not available. |
| | | 5X First Strand Buffer | Not available. |
| | | 0.1 M DTT | Not available. |
| | | 10 mM dNTP Mix | Not available. |
| | | AffinityScript RT RNase Block Mix | Not available. |
| | | NTP Mix | Not available. |
| | | 5X Transcription Buffer | Not available. |
| | | T7 RNA Polymerase Blend | Not available. |
| | | Cyanine-3-CTP | Not available. |
| | | Cyanine-5-CTP | Not available. |
| | | WT Primer Mix | Not available. |
| **Odour threshold** | : | Nuclease-Free Water | Not available. |
| | | T7 Primer | Not available. |
| | | 5X First Strand Buffer | Not available. |
| | | 0.1 M DTT | Not available. |
| | | 10 mM dNTP Mix | Not available. |
| | | AffinityScript RT RNase Block Mix | Not available. |
| | | NTP Mix | Not available. |
| | | 5X Transcription Buffer | Not available. |
| | | T7 RNA Polymerase Blend | Not available. |
| | | Cyanine-3-CTP | Not available. |
| | | Cyanine-5-CTP | Not available. |
| | | WT Primer Mix | Not available. |

## SECTION 9: Physical and chemical properties

| | | | |
|---|---|---|---|
| **pH** | : | Nuclease-Free Water | 7 |
| | | T7 Primer | Not available. |
| | | 5X First Strand Buffer | Not available. |
| | | 0.1 M DTT | Not available. |
| | | 10 mM dNTP Mix | Not available. |
| | | AffinityScript RT RNase Block Mix | Not available. |
| | | NTP Mix | Not available. |
| | | 5X Transcription Buffer | Not available. |
| | | T7 RNA Polymerase Blend | Not available. |
| | | Cyanine-3-CTP | 7.6 |
| | | Cyanine-5-CTP | 7.6 |
| | | WT Primer Mix | 7.5 to 8 |
| **Melting point/freezing point** | : | Nuclease-Free Water | 0°C |
| | | T7 Primer | 0°C |
| | | 5X First Strand Buffer | Not available. |
| | | 0.1 M DTT | 0°C |
| | | 10 mM dNTP Mix | 0°C |
| | | AffinityScript RT RNase Block Mix | Not available. |
| | | NTP Mix | 0°C |
| | | 5X Transcription Buffer | Not available. |
| | | T7 RNA Polymerase Blend | Not available. |
| | | Cyanine-3-CTP | 0°C |
| | | Cyanine-5-CTP | 0°C |
| | | WT Primer Mix | 0°C |
| **Initial boiling point and boiling range** | : | Nuclease-Free Water | 100°C |
| | | T7 Primer | 100°C |
| | | 5X First Strand Buffer | Not available. |
| | | 0.1 M DTT | 100°C |
| | | 10 mM dNTP Mix | 100°C |
| | | AffinityScript RT RNase Block Mix | Not available. |
| | | NTP Mix | 100°C |
| | | 5X Transcription Buffer | Not available. |
| | | T7 RNA Polymerase Blend | Not available. |
| | | Cyanine-3-CTP | 100°C |
| | | Cyanine-5-CTP | 100°C |
| | | WT Primer Mix | 100°C |
| **Flash point** | : | 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. |

## SECTION 9: Physical and chemical properties

| | | | |
|---|---|---|---|
| **Evaporation rate** | : | Nuclease-Free Water | Not available. |
| | | T7 Primer | Not available. |
| | | 5X First Strand Buffer | Not available. |
| | | 0.1 M DTT | Not available. |
| | | 10 mM dNTP Mix | Not available. |
| | | AffinityScript RT RNase Block Mix | Not available. |
| | | NTP Mix | Not available. |
| | | 5X Transcription Buffer | Not available. |
| | | T7 RNA Polymerase Blend | Not available. |
| | | Cyanine-3-CTP | Not available. |
| | | Cyanine-5-CTP | Not available. |
| | | WT Primer Mix | Not available. |
| **Flammability (solid, gas)** | : | 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. |
| **Upper/lower flammability or explosive limits** | : | Nuclease-Free Water | Not available. |
| | | T7 Primer | Not available. |
| | | 5X First Strand Buffer | Not available. |
| | | 0.1 M DTT | Not available. |
| | | 10 mM dNTP Mix | Not available. |
| | | AffinityScript RT RNase Block Mix | Not available. |
| | | NTP Mix | Not available. |
| | | 5X Transcription Buffer | Not available. |
| | | T7 RNA Polymerase Blend | Not available. |
| | | Cyanine-3-CTP | Not available. |
| | | Cyanine-5-CTP | Not available. |
| | | WT Primer Mix | Not available. |
| **Vapour pressure** | : | Nuclease-Free Water | 3.2 kPa [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. |

## SECTION 9: Physical and chemical properties

| | | | |
|---|---|---|---|
| **Vapour density** | : | Nuclease-Free Water | 0.62 [Air = 1] |
| | | T7 Primer | Not available. |
| | | 5X First Strand Buffer | Not available. |
| | | 0.1 M DTT | Not available. |
| | | 10 mM dNTP Mix | Not available. |
| | | AffinityScript RT RNase Block Mix | Not available. |
| | | NTP Mix | Not available. |
| | | 5X Transcription Buffer | Not available. |
| | | T7 RNA Polymerase Blend | Not available. |
| | | Cyanine-3-CTP | Not available. |
| | | Cyanine-5-CTP | Not available. |
| | | WT Primer Mix | Not available. |
| **Relative density** | : | Nuclease-Free Water | 1 |
| | | T7 Primer | Not available. |
| | | 5X First Strand Buffer | Not available. |
| | | 0.1 M DTT | Not available. |
| | | 10 mM dNTP Mix | Not available. |
| | | AffinityScript RT RNase Block Mix | Not available. |
| | | NTP Mix | Not available. |
| | | 5X Transcription Buffer | Not available. |
| | | T7 RNA Polymerase Blend | Not available. |
| | | Cyanine-3-CTP | Not available. |
| | | Cyanine-5-CTP | Not available. |
| | | WT Primer Mix | Not available. |
| **Solubility(ies)** | : | 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. |
| | | WT Primer Mix | Easily soluble in the following materials: cold water and hot water. |
| **Partition coefficient: n-octanol/water** | : | Nuclease-Free Water | -1.38 |
| | | T7 Primer | Not available. |
| | | 5X First Strand Buffer | Not available. |
| | | 0.1 M DTT | Not available. |
| | | 10 mM dNTP Mix | Not available. |
| | | AffinityScript RT RNase Block Mix | Not available. |
| | | NTP Mix | Not available. |
| | | 5X Transcription Buffer | Not available. |

## SECTION 9: Physical and chemical properties

| | | | |
|---|---|---|---|
| | | T7 RNA Polymerase Blend | Not available. |
| | | Cyanine-3-CTP | Not available. |
| | | Cyanine-5-CTP | Not available. |
| | | WT Primer Mix | Not available. |
| **Auto-ignition temperature** | : | Nuclease-Free Water | Not applicable. |
| | | T7 Primer | Not available. |
| | | 5X First Strand Buffer | Not available. |
| | | 0.1 M DTT | Not available. |
| | | 10 mM dNTP Mix | Not available. |
| | | AffinityScript RT RNase Block Mix | Not available. |
| | | NTP Mix | Not available. |
| | | 5X Transcription Buffer | Not available. |
| | | T7 RNA Polymerase Blend | Not available. |
| | | Cyanine-3-CTP | Not available. |
| | | Cyanine-5-CTP | Not available. |
| | | WT Primer Mix | Not available. |
| **Decomposition temperature** | : | Nuclease-Free Water | Not available. |
| | | T7 Primer | Not available. |
| | | 5X First Strand Buffer | Not available. |
| | | 0.1 M DTT | Not available. |
| | | 10 mM dNTP Mix | Not available. |
| | | AffinityScript RT RNase Block Mix | Not available. |
| | | NTP Mix | Not available. |
| | | 5X Transcription Buffer | Not available. |
| | | T7 RNA Polymerase Blend | Not available. |
| | | Cyanine-3-CTP | Not available. |
| | | Cyanine-5-CTP | Not available. |
| | | WT Primer Mix | Not available. |
| **Viscosity** | : | Nuclease-Free Water | Not available. |
| | | T7 Primer | Not available. |
| | | 5X First Strand Buffer | Not available. |
| | | 0.1 M DTT | Not available. |
| | | 10 mM dNTP Mix | Not available. |
| | | AffinityScript RT RNase Block Mix | Not available. |
| | | NTP Mix | Not available. |
| | | 5X Transcription Buffer | Not available. |
| | | T7 RNA Polymerase Blend | Not available. |
| | | Cyanine-3-CTP | Not available. |
| | | Cyanine-5-CTP | Not available. |
| | | WT Primer Mix | Not available. |
| **Explosive properties** | : | Nuclease-Free Water | Not available. |
| | | T7 Primer | Not available. |
| | | 5X First Strand Buffer | Not available. |
| | | 0.1 M DTT | Not available. |
| | | 10 mM dNTP Mix | Not available. |
| | | AffinityScript RT RNase Block Mix | Not available. |
| | | NTP Mix | Not available. |
| | | 5X Transcription Buffer | Not available. |
| | | T7 RNA Polymerase Blend | Not available. |
| | | Cyanine-3-CTP | Not available. |
| | | Cyanine-5-CTP | Not available. |
| | | WT Primer Mix | Not available. |

## SECTION 9: Physical and chemical properties

**Oxidising properties** :

| | |
|---|---|
| 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. |

### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

**10.1 Reactivity** :

| | |
|---|---|
| Nuclease-Free Water | No specific test data related to reactivity available for this product or its ingredients. |
| T7 Primer | No specific test data related to reactivity available for this product or its ingredients. |
| 5X First Strand Buffer | No specific test data related to reactivity available for this product or its ingredients. |
| 0.1 M DTT | No specific test data related to reactivity available for this product or its ingredients. |
| 10 mM dNTP Mix | No specific test data related to reactivity available for this product or its ingredients. |
| AffinityScript RT RNase Block Mix | No specific test data related to reactivity available for this product or its ingredients. |
| NTP Mix | No specific test data related to reactivity available for this product or its ingredients. |
| 5X Transcription Buffer | No specific test data related to reactivity available for this product or its ingredients. |
| T7 RNA Polymerase Blend | No specific test data related to reactivity available for this product or its ingredients. |
| Cyanine-3-CTP | No specific test data related to reactivity available for this product or its ingredients. |
| Cyanine-5-CTP | No specific test data related to reactivity available for this product or its ingredients. |
| WT Primer Mix | No specific test data related to reactivity available for this product or its ingredients. |

**10.2 Chemical stability** :

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

## SECTION 10: Stability and reactivity

**10.3 Possibility of hazardous reactions**

| | |
|---|---|
| Nuclease-Free Water | Under normal conditions of storage and use, hazardous reactions will not occur. |
| T7 Primer | Under normal conditions of storage and use, hazardous reactions will not occur. |
| 5X First Strand Buffer | Under normal conditions of storage and use, hazardous reactions will not occur. |
| 0.1 M DTT | Under normal conditions of storage and use, hazardous reactions will not occur. |
| 10 mM dNTP Mix | Under normal conditions of storage and use, hazardous reactions will not occur. |
| AffinityScript RT RNase Block Mix | Under normal conditions of storage and use, hazardous reactions will not occur. |
| NTP Mix | Under normal conditions of storage and use, hazardous reactions will not occur. |
| 5X Transcription Buffer | Under normal conditions of storage and use, hazardous reactions will not occur. |
| T7 RNA Polymerase Blend | Under normal conditions of storage and use, hazardous reactions will not occur. |
| Cyanine-3-CTP | Under normal conditions of storage and use, hazardous reactions will not occur. |
| Cyanine-5-CTP | Under normal conditions of storage and use, hazardous reactions will not occur. |
| WT Primer Mix | Under normal conditions of storage and use, hazardous reactions will not occur. |

**10.4 Conditions to avoid**

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

**10.5 Incompatible materials**

| | |
|---|---|
| Nuclease-Free Water | May react or be incompatible with oxidising materials. |
| T7 Primer | May react or be incompatible with oxidising materials. |
| 5X First Strand Buffer | May react or be incompatible with oxidising materials. |
| 0.1 M DTT | May react or be incompatible with oxidising materials. |
| 10 mM dNTP Mix | May react or be incompatible with oxidising materials. |
| AffinityScript RT RNase Block Mix | May react or be incompatible with oxidising materials. |
| NTP Mix | May react or be incompatible with oxidising materials. |
| 5X Transcription Buffer | May react or be incompatible with oxidising materials. |
| T7 RNA Polymerase Blend | May react or be incompatible with oxidising materials. |
| Cyanine-3-CTP | May react or be incompatible with oxidising materials. |
| Cyanine-5-CTP | May react or be incompatible with oxidising materials. |
| WT Primer Mix | May react or be incompatible with oxidising materials. |

## SECTION 10: Stability and reactivity

**10.6 Hazardous decomposition products**

| | |
|---|---|
| Nuclease-Free Water | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| T7 Primer | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| 5X First Strand Buffer | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| 0.1 M DTT | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| 10 mM dNTP Mix | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| AffinityScript RT RNase Block Mix | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| NTP Mix | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| 5X Transcription Buffer | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| T7 RNA Polymerase Blend | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| Cyanine-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**

Not available.

**Acute toxicity estimates**

Not available.

**Irritation/Corrosion**

**Conclusion/Summary** : Not available.

**Sensitiser**

**Conclusion/Summary** : Not available.

**Specific target organ toxicity (single exposure)**

| Product/ingredient name | Category | Route of exposure | Target organs |
|---|---|---|---|
| **5X Transcription Buffer**<br>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 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. |

## SECTION 11: Toxicological information

| | |
|---|---|
| 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

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

## SECTION 11: Toxicological information

| | | |
|---|---|---|
| | WT Primer Mix | No known significant effects or critical hazards. |

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

| | | | |
|---|---|---|---|
| **Inhalation** | : | Nuclease-Free Water | No specific data. |
| | | T7 Primer | No specific data. |
| | | 5X First Strand Buffer | No specific data. |
| | | 0.1 M DTT | No specific data. |
| | | 10 mM dNTP Mix | No specific data. |
| | | AffinityScript RT RNase Block Mix | No specific data. |
| | | NTP Mix | No specific data. |
| | | 5X Transcription Buffer | No specific data. |
| | | T7 RNA Polymerase Blend | No specific data. |
| | | Cyanine-3-CTP | No specific data. |
| | | Cyanine-5-CTP | No specific data. |
| | | WT Primer Mix | No specific data. |
| **Ingestion** | : | Nuclease-Free Water | No specific data. |
| | | T7 Primer | No specific data. |
| | | 5X First Strand Buffer | No specific data. |
| | | 0.1 M DTT | No specific data. |
| | | 10 mM dNTP Mix | No specific data. |
| | | AffinityScript RT RNase Block Mix | No specific data. |
| | | NTP Mix | No specific data. |
| | | 5X Transcription Buffer | No specific data. |
| | | T7 RNA Polymerase Blend | No specific data. |
| | | Cyanine-3-CTP | No specific data. |
| | | Cyanine-5-CTP | No specific data. |
| | | WT Primer Mix | No specific data. |
| **Skin contact** | : | Nuclease-Free Water | No specific data. |
| | | T7 Primer | No specific data. |
| | | 5X First Strand Buffer | No specific data. |
| | | 0.1 M DTT | No specific data. |
| | | 10 mM dNTP Mix | No specific data. |
| | | AffinityScript RT RNase Block Mix | No specific data. |
| | | NTP Mix | No specific data. |
| | | 5X Transcription Buffer | No specific data. |
| | | T7 RNA Polymerase Blend | No specific data. |
| | | Cyanine-3-CTP | No specific data. |
| | | Cyanine-5-CTP | No specific data. |
| | | WT Primer Mix | No specific data. |
| **Eye contact** | : | Nuclease-Free Water | No specific data. |
| | | T7 Primer | No specific data. |
| | | 5X First Strand Buffer | No specific data. |
| | | 0.1 M DTT | No specific data. |
| | | 10 mM dNTP Mix | No specific data. |
| | | AffinityScript RT RNase Block Mix | No specific data. |
| | | NTP Mix | No specific data. |
| | | 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 as well as chronic effects from short and long-term exposure**

**Short term exposure**

## SECTION 11: Toxicological information

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Long term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Potential chronic health effects**

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

## SECTION 11: Toxicological information

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

## SECTION 12: Ecological information

### 12.1 Toxicity

**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|---|---|---|---|---|
| **Nuclease-Free Water** Water | - | 100 % - 28 days | - | - |

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

### 12.3 Bioaccumulative potential

## SECTION 12: Ecological information

| Product/ingredient name | $LogP_{ow}$ | BCF | Potential |
|---|---|---|---|
| **Nuclease-Free Water**<br>Water | -1.38 | - | low |

### 12.4 Mobility in soil

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

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

**PBT** : Not applicable.

**vPvB** : Not applicable.

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

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

**Product**

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

**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

**Packaging**

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

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

**ADR/RID / IMDG / IATA** : Not regulated.

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

**14.7 Transport in bulk according to 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

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

##### Annex XIV - List of substances subject to authorisation

###### Annex XIV

None of the components are listed.

###### Substances of very high concern

None of the components are listed.

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

| | |
|---|---|
| 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. |

#### Other EU regulations

##### Ozone depleting substances (1005/2009/EU)

Not listed.

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

Not listed.

##### Seveso Directive

This product is not controlled under the Seveso Directive.

#### International regulations

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

Not listed.

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

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

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

Not listed.

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

Not listed.

#### Inventory list

**Australia** : Not determined.

**Canada** : Not determined.

**China** : Not determined.

**Europe** : All components are listed or exempted.

**Japan** : **Japan inventory (ENCS)**: Not determined.
**Japan inventory (ISHL)**: Not determined.

**Malaysia** : Not determined.

**New Zealand** : Not determined.

**Philippines** : Not determined.

## SECTION 15: Regulatory information

**Republic of Korea** : Not determined.

**Taiwan** : Not determined.

**Thailand** : Not determined.

**Turkey** : Not determined.

**United States** : Not determined.

**Viet Nam** : Not determined.

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

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

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

| Classification | Justification |
|---|---|
| Not classified. | |

**Full text of abbreviated H statements**

| | |
|---|---|
| **5X Transcription Buffer** | |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H335 | May cause respiratory irritation. |

**Full text of classifications [CLP/GHS]**

| | |
|---|---|
| **5X Transcription Buffer** | |
| Eye Irrit. 2, H319 | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 |
| Skin Irrit. 2, H315 | SKIN CORROSION/IRRITATION - Category 2 |
| STOT SE 3, H335 | SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3 |

**Date of issue/ Date of revision** : 30/06/2017

**Date of previous issue** : No previous validation.

**Version** : 1

**Notice to reader**

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