

# Material Safety Data Sheet



Agilent Low Input QuickAmp WT Labeling Kit, No Dye, Part Number 5190-2942

## 1. Product and company identification

<b>Product name</b>	: Agilent Low Input QuickAmp WT Labeling Kit, No Dye, Part Number 5190-2942
<b>Material uses</b>	: Analytical reagent.
	T7 Primer 0.024 ml
	5X First Strand Buffer 0.1 ml
	0.1 M DTT 0.07 ml
	dNTP Mix 0.02 ml
	AffinityScript RNase Block Mix 0.036 ml
	5x Transcription Buffer 0.16 ml
	NTP Mix 0.035 ml
	T7 RNA Polymerase Blend 0.01 ml
	Nuclease-Free Water 0.25 ml
	WT Primer Mix 0.03 ml
<b>Supplier/Manufacturer</b>	: Agilent Technologies, Inc. 1834 State Highway 71 West Cedar Creek, TX 78612
<b>Part No. (Chemical Kit)</b>	: 5190-2942
<b>Part No.</b>	: T7 Primer 5190-2320
	5X First Strand Buffer 5190-2321
	0.1 M DTT 5190-2322
	dNTP Mix 5190-2323
	AffinityScript RNase Block Mix 5190-2324
	5x Transcription Buffer 5190-2325
	NTP Mix 5190-2326
	T7 RNA Polymerase Blend 5190-2327
	Nuclease-Free Water 5190-2328
	WT Primer Mix 5190-2941
<b>Validation date</b>	: 10/21/2010
<b><u>In case of emergency</u></b>	: 1-800-894-1304

## 2. Hazards identification

<b>Physical state</b>	: T7 Primer Liquid.
	5X First Strand Buffer Liquid.
	0.1 M DTT Liquid.
	dNTP Mix Liquid.
	AffinityScript RNase Block Mix Liquid.
	5x Transcription Buffer Liquid.
	NTP Mix Liquid.
	T7 RNA Polymerase Blend Liquid.
	Nuclease-Free Water Liquid.
	WT Primer Mix Liquid.
<b>Odor</b>	: T7 Primer Not available.
	5X First Strand Buffer Not available.
	0.1 M DTT Not available.
	dNTP Mix Not available.
	AffinityScript RNase Block Mix Not available.
	5x Transcription Buffer Not available.
	NTP Mix Not available.
	T7 RNA Polymerase Blend Not available.
	Nuclease-Free Water Odorless.
	WT Primer Mix Not available.

### Emergency overview

## 2. Hazards identification

<b>Signal word</b>	: T7 Primer 5X First Strand Buffer 0.1 M DTT dNTP Mix AffinityScript RNase Block Mix 5x Transcription Buffer NTP Mix T7 RNA Polymerase Blend Nuclease-Free Water WT Primer Mix	No signal word. No signal word. No signal word. No signal word. No signal word. WARNING! No signal word. No signal word. No signal word. No signal word.
<b>Hazard statements</b>	: T7 Primer  5X First Strand Buffer  0.1 M DTT  dNTP Mix  AffinityScript RNase Block Mix  5x Transcription Buffer  NTP Mix  T7 RNA Polymerase Blend  Nuclease-Free Water  WT Primer Mix	NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED. NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED. MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED. MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED. NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.
<b>Precautions</b>	: T7 Primer  5X First Strand Buffer  0.1 M DTT  dNTP Mix  AffinityScript RNase Block Mix	No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing. No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing. No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing. No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid contact with

## 2. Hazards identification

5x Transcription Buffer	Avoid prolonged or repeated contact with skin. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
NTP Mix	Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
T7 RNA Polymerase Blend	No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing.
Nuclease-Free Water	Avoid breathing vapor or mist. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
WT Primer Mix	No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing.

### Routes of entry

: T7 Primer	Not available.
5X First Strand Buffer	Not available.
0.1 M DTT	Not available.
dNTP Mix	Not available.
AffinityScript RNase Block Mix	Not available.
5x Transcription Buffer	Not available.
NTP Mix	Not available.
T7 RNA Polymerase Blend	Not available.
Nuclease-Free Water	Not available.
WT Primer Mix	Not available.

### Potential acute health effects

#### Inhalation

: 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.
dNTP Mix	No known significant effects or critical hazards.
AffinityScript RNase Block Mix	No known significant effects or critical hazards.
5x Transcription Buffer	Slightly irritating to the respiratory system. Irritating to respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
NTP Mix	No known significant effects or critical hazards.
T7 RNA Polymerase Blend	Slightly irritating to the respiratory system.
Nuclease-Free Water	No known significant effects or critical hazards.
WT Primer Mix	No known significant effects or critical hazards.

#### Ingestion

: 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.
dNTP Mix	No known significant effects or critical hazards.
AffinityScript RNase Block Mix	No known significant effects or critical hazards.
5x Transcription Buffer	No known significant effects or critical hazards.
NTP Mix	No known significant effects or critical hazards.
T7 RNA Polymerase Blend	No known significant effects or critical hazards.
Nuclease-Free Water	No known significant effects or critical hazards.
WT Primer Mix	No known significant effects or critical hazards.

## 2. Hazards identification

<b>Skin</b>	: T7 Primer 5X First Strand Buffer 0.1 M DTT dNTP Mix AffinityScript RNase Block Mix 5x Transcription Buffer NTP Mix T7 RNA Polymerase Blend Nuclease-Free Water WT Primer Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Slightly irritating to the skin. Irritating to skin. No known significant effects or critical hazards. Slightly irritating to the skin. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Eyes</b>	: T7 Primer 5X First Strand Buffer 0.1 M DTT dNTP Mix AffinityScript RNase Block Mix 5x Transcription Buffer NTP Mix T7 RNA Polymerase Blend Nuclease-Free Water WT Primer Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Slightly irritating to the eyes. Irritating to eyes. No known significant effects or critical hazards. Slightly irritating to the eyes. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b><u>Potential chronic health effects</u></b>		
<b>Chronic effects</b>	: T7 Primer 5X First Strand Buffer  0.1 M DTT dNTP Mix AffinityScript RNase Block Mix  5x Transcription Buffer NTP Mix T7 RNA Polymerase Blend  Nuclease-Free Water WT Primer Mix	No known significant effects or critical hazards. Contains material that may cause target organ damage, based on animal data. No known significant effects or critical hazards. No known significant effects or critical hazards. Contains material that may cause target organ damage, based on animal data. No known significant effects or critical hazards. No known significant effects or critical hazards. Contains material that may cause target organ damage, based on animal data. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: T7 Primer 5X First Strand Buffer 0.1 M DTT dNTP Mix AffinityScript RNase Block Mix 5x Transcription Buffer NTP Mix T7 RNA Polymerase Blend Nuclease-Free Water WT Primer Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Mutagenicity</b>	: T7 Primer 5X First Strand Buffer 0.1 M DTT dNTP Mix AffinityScript RNase Block Mix 5x Transcription Buffer NTP Mix T7 RNA Polymerase Blend Nuclease-Free Water WT Primer Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Teratogenicity</b>	:	No known significant effects or critical hazards.

## 2. Hazards identification

	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.
	dNTP Mix	No known significant effects or critical hazards.
	AffinityScript RNase Block Mix	No known significant effects or critical hazards.
	5x Transcription Buffer	No known significant effects or critical hazards.
	NTP Mix	No known significant effects or critical hazards.
	T7 RNA Polymerase Blend	No known significant effects or critical hazards.
	Nuclease-Free Water	No known significant effects or critical hazards.
	WT Primer Mix	No known significant effects or critical hazards.
<b>Developmental effects</b>	: 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.
	dNTP Mix	No known significant effects or critical hazards.
	AffinityScript RNase Block Mix	No known significant effects or critical hazards.
	5x Transcription Buffer	No known significant effects or critical hazards.
	NTP Mix	No known significant effects or critical hazards.
	T7 RNA Polymerase Blend	No known significant effects or critical hazards.
	Nuclease-Free Water	No known significant effects or critical hazards.
	WT Primer Mix	No known significant effects or critical hazards.
<b>Fertility effects</b>	: 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.
	dNTP Mix	No known significant effects or critical hazards.
	AffinityScript RNase Block Mix	No known significant effects or critical hazards.
	5x Transcription Buffer	No known significant effects or critical hazards.
	NTP Mix	No known significant effects or critical hazards.
	T7 RNA Polymerase Blend	No known significant effects or critical hazards.
	Nuclease-Free Water	No known significant effects or critical hazards.
	WT Primer Mix	No known significant effects or critical hazards.
<b>Target organs</b>	: T7 Primer	Not available.
	5X First Strand Buffer	Contains material which may cause damage to the following organs: gastrointestinal tract, eye, lens or cornea.
	0.1 M DTT	Not available.
	dNTP Mix	Not available.
	AffinityScript RNase Block Mix	Contains material which may cause damage to the following organs: kidneys, upper respiratory tract, skin, eye, lens or cornea.
	5x Transcription Buffer	Not available.
	NTP Mix	Not available.
	T7 RNA Polymerase Blend	Contains material which may cause damage to the following organs: kidneys, upper respiratory tract, skin, eye, lens or cornea.
	Nuclease-Free Water	Not available.
	WT Primer Mix	Not available.
<b><u>Over-exposure signs/symptoms</u></b>		
<b>Inhalation</b>	: T7 Primer	No specific data.
	5X First Strand Buffer	No specific data.
	0.1 M DTT	No specific data.
	dNTP Mix	No specific data.
	AffinityScript RNase Block Mix	Adverse symptoms may include the following: respiratory tract irritation coughing
	5x Transcription Buffer	Adverse symptoms may include the following: respiratory tract irritation coughing
	NTP Mix	No specific data.
	T7 RNA Polymerase Blend	Adverse symptoms may include the following:

## 2. Hazards identification

		respiratory tract irritation coughing
	Nuclease-Free Water	No specific data.
	WT Primer Mix	No specific data.
<b>Ingestion</b>	: T7 Primer	No specific data.
	5X First Strand Buffer	No specific data.
	0.1 M DTT	No specific data.
	dNTP Mix	No specific data.
	AffinityScript RNase Block Mix	No specific data.
	5x Transcription Buffer	No specific data.
	NTP Mix	No specific data.
	T7 RNA Polymerase Blend	No specific data.
	Nuclease-Free Water	No specific data.
	WT Primer Mix	No specific data.
<b>Skin</b>	: T7 Primer	No specific data.
	5X First Strand Buffer	No specific data.
	0.1 M DTT	No specific data.
	dNTP Mix	No specific data.
	AffinityScript RNase Block Mix	Adverse symptoms may include the following: irritation redness
	5x Transcription Buffer	Adverse symptoms may include the following: irritation redness
	NTP Mix	No specific data.
	T7 RNA Polymerase Blend	Adverse symptoms may include the following: irritation redness
	Nuclease-Free Water	No specific data.
	WT Primer Mix	No specific data.
<b>Eyes</b>	: T7 Primer	No specific data.
	5X First Strand Buffer	No specific data.
	0.1 M DTT	No specific data.
	dNTP Mix	No specific data.
	AffinityScript RNase Block Mix	Adverse symptoms may include the following: irritation watering redness
	5x Transcription Buffer	Adverse symptoms may include the following: pain or irritation watering redness
	NTP Mix	No specific data.
	T7 RNA Polymerase Blend	Adverse symptoms may include the following: irritation watering redness
	Nuclease-Free Water	No specific data.
	WT Primer Mix	No specific data.
<b>Medical conditions aggravated by over-exposure</b>	: T7 Primer	None known.
	5X First Strand Buffer	Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.
	0.1 M DTT	None known.
	dNTP Mix	None known.
	AffinityScript RNase Block Mix	Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.
	5x Transcription Buffer	None known.

## 2. Hazards identification

NTP Mix	None known.
T7 RNA Polymerase Blend	Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.
Nuclease-Free Water	None known.
WT Primer Mix	None known.

See toxicological information (section 11)

## 3. Composition/information on ingredients

Name	CAS number	%
<b>AffinityScript RNase Block Mix</b> Glycerol	56-81-5	30 - 60
<b>5x Transcription Buffer</b> Polyethylene glycol	25322-68-3	7 - 13
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	1185-53-1	1 - 5
<b>T7 RNA Polymerase Blend</b> Glycerol	56-81-5	30 - 60

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.

## 4. First aid measures

<b>Eye contact</b>	: T7 Primer	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.
	5X First Strand Buffer	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
	0.1 M DTT	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.
	dNTP Mix	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.
	AffinityScript RNase Block Mix	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
	5x Transcription Buffer	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
	NTP Mix	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.
	T7 RNA Polymerase Blend	Check for and remove any contact lenses.

## 4. First aid measures

		Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately. Check for and remove any contact lenses.
	Nuclease-Free Water	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.
	WT Primer Mix	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.
<b>Skin contact</b>	: T7 Primer	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
	5X First Strand Buffer	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
	0.1 M DTT	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
	dNTP Mix	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
	AffinityScript RNase Block Mix	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
	5x Transcription Buffer	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
	NTP Mix	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
	T7 RNA Polymerase Blend	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
	Nuclease-Free Water	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash



## 4. First aid measures

		clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
	WT Primer Mix	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
<b>Inhalation</b>	: T7 Primer	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.
	5X First Strand Buffer	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
	0.1 M DTT	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.
	dNTP Mix	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.
	AffinityScript RNase Block Mix	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
	5x Transcription Buffer	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
	NTP Mix	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.
	T7 RNA Polymerase Blend	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
	Nuclease-Free Water	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by

## 4. First aid measures

	WT Primer Mix	<p>trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.</p> <p>Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.</p>
<b>Ingestion</b>	: T7 Primer	<p>Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.</p>
	5X First Strand Buffer	<p>Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.</p>
	0.1 M DTT	<p>Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.</p>
	dNTP Mix	<p>Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.</p>
	AffinityScript RNase Block Mix	<p>Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.</p>
	5x Transcription Buffer	<p>Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.</p>
	NTP Mix	<p>Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.</p>
	T7 RNA Polymerase Blend	<p>Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.</p>
	Nuclease-Free Water	<p>Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.</p>
	WT Primer Mix	<p>Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.</p>

## 4. First aid measures

<b>Protection of first-aiders</b>	: 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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	0.1 M DTT	No action shall be taken involving any personal risk or without suitable training.
	dNTP Mix	No action shall be taken involving any personal risk or without suitable training.
	AffinityScript RNase Block Mix	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	5x Transcription Buffer	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	NTP Mix	No action shall be taken involving any personal risk or without suitable training.
	T7 RNA Polymerase Blend	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	Nuclease-Free Water	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.
<b>Notes to physician</b>	: T7 Primer	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	5X First Strand Buffer	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	0.1 M DTT	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	dNTP Mix	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	AffinityScript RNase Block Mix	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	5x Transcription Buffer	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	NTP Mix	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	T7 RNA Polymerase Blend	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Nuclease-Free Water	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	WT Primer Mix	No specific treatment. Treat symptomatically.

## 4. First aid measures

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

## 5. Fire-fighting measures

### Flammability of the product

: 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.
dNTP Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
AffinityScript RNase Block 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.
NTP Mix	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.
Nuclease-Free Water	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.

### Extinguishing media

#### Suitable

: 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.
dNTP Mix	Use an extinguishing agent suitable for the surrounding fire.
AffinityScript RNase Block Mix	Use an extinguishing agent suitable for the surrounding fire.
5x Transcription Buffer	Use an extinguishing agent suitable for the surrounding fire.
NTP Mix	Use an extinguishing agent suitable for the surrounding fire.
T7 RNA Polymerase Blend	Use an extinguishing agent suitable for the surrounding fire.
Nuclease-Free Water	Use an extinguishing agent suitable for the surrounding fire.
WT Primer Mix	Use an extinguishing agent suitable for the surrounding fire.

#### Not suitable

: T7 Primer	None known.
5X First Strand Buffer	None known.
0.1 M DTT	None known.
dNTP Mix	None known.
AffinityScript RNase Block Mix	None known.
5x Transcription Buffer	None known.
NTP Mix	None known.
T7 RNA Polymerase Blend	None known.
Nuclease-Free Water	None known.
WT Primer Mix	None known.

## 5. Fire-fighting measures

<b>Special exposure hazards</b>	: T7 Primer 5X First Strand Buffer 0.1 M DTT dNTP Mix AffinityScript RNase Block Mix 5x Transcription Buffer NTP Mix T7 RNA Polymerase Blend Nuclease-Free Water WT Primer Mix	No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training.
<b>Hazardous thermal decomposition products</b>	: T7 Primer 5X First Strand Buffer  0.1 M DTT dNTP Mix AffinityScript RNase Block Mix  5x Transcription Buffer  NTP Mix T7 RNA Polymerase Blend  Nuclease-Free Water WT Primer Mix	No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides No specific data. No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide No specific data. No specific data.
<b>Special protective equipment for fire-fighters</b>	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.	

## 6. Accidental release measures

<b>Personal precautions</b>	: T7 Primer  5X First Strand Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment (see Section 8). No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected
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## 6. Accidental release measures

	personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
0.1 M DTT	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment (see Section 8).
dNTP Mix	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment (see Section 8).
AffinityScript RNase Block Mix	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
5x Transcription Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
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 spilled material. Put on appropriate personal protective equipment (see Section 8).
T7 RNA Polymerase Blend	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
Nuclease-Free Water	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment (see Section 8).
WT Primer Mix	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected

## 6. Accidental release measures

**Environmental precautions :** T7 Primer

personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment (see Section 8).

5X First Strand Buffer

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

0.1 M DTT

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

dNTP Mix

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

AffinityScript RNase Block Mix

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

5x Transcription Buffer

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

NTP Mix

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

T7 RNA Polymerase Blend

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Nuclease-Free Water

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

WT Primer Mix

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

## 6. Accidental release measures

<b>Methods for cleaning up</b>	: 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.
	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 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.
	5x Transcription Buffer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
	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.
	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.
	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.
	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.



## 7. Handling and storage

### Handling

: T7 Primer

Put on appropriate personal protective equipment (see Section 8). 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.

5X First Strand Buffer

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

0.1 M DTT

Put on appropriate personal protective equipment (see Section 8). 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.

dNTP Mix

Put on appropriate personal protective equipment (see Section 8). 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.

AffinityScript RNase Block Mix

Put on appropriate personal protective equipment (see Section 8). 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. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

5x Transcription Buffer

Put on appropriate personal protective equipment (see Section 8). 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. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only

## 7. Handling and storage

	with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
NTP Mix	Put on appropriate personal protective equipment (see Section 8). 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.
T7 RNA Polymerase Blend	Put on appropriate personal protective equipment (see Section 8). 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. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Nuclease-Free Water	Put on appropriate personal protective equipment (see Section 8). 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.
WT Primer Mix	Put on appropriate personal protective equipment (see Section 8). 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.
<b>Storage</b>	
: T7 Primer	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
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

## 7. Handling and storage

0.1 M DTT

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

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 unlabeled containers. Use appropriate containment to avoid environmental contamination.

AffinityScript 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 unlabeled containers. Use appropriate containment to avoid environmental contamination.

5x Transcription Buffer

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

NTP Mix

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

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

## 7. Handling and storage

Nuclease-Free Water

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

WT Primer Mix

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

## 8. Exposure controls/personal protection

<u>Occupational exposure limits</u>		TWA (8 hours)			STEL (15 mins)			Ceiling			
Ingredient	List name	ppm	mg/m <sup>3</sup>	Other	ppm	mg/m <sup>3</sup>	Other	ppm	mg/m <sup>3</sup>	Other	Notations
AffinityScript RNase Block Mix Glycerol	US ACGIH 1/2009	-	10	-	-	-	-	-	-	-	[a]
	AB 4/2009	-	10	-	-	-	-	-	-	-	[3] [a]
	BC 10/2009	-	10	-	-	-	-	-	-	-	[a]
		-	3	-	-	-	-	-	-	-	[b]
	ON 8/2008	-	10	-	-	-	-	-	-	-	[c]
	QC 6/2008	-	10	-	-	-	-	-	-	-	[c]
5x Transcription Buffer Polyethylene glycol	US AIHA 1/2009	-	10	-	-	-	-	-	-	-	[a]
T7 RNA Polymerase Blend Glycerol	US ACGIH 1/2009	-	10	-	-	-	-	-	-	-	[a]
	AB 4/2009	-	10	-	-	-	-	-	-	-	[3] [a]
	BC 10/2009	-	10	-	-	-	-	-	-	-	[a]
		-	3	-	-	-	-	-	-	-	[b]
	ON 8/2008	-	10	-	-	-	-	-	-	-	[c]
	QC 6/2008	-	10	-	-	-	-	-	-	-	[c]

[3]Skin sensitization

Form: [a]Mist [b]Respirable mist [c]mist [d]Aerosol

**Consult local authorities for acceptable exposure limits.**

**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.

**Engineering measures** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

## 8. Exposure controls/personal protection

- 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.
- Personal protection**
- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hands** : 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.
- Eyes** : 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 or dusts.
- Skin** : 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.
- 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.
- Other protection** : Not available.

## 9. Physical and chemical properties

- |                                  |                                |  |
|----------------------------------|--------------------------------|--|
| <b>Physical state</b>            | T7 Primer                      | Liquid.                                |
|                                  | 5X First Strand Buffer         | Liquid.                                |
|                                  | 0.1 M DTT                      | Liquid.                                |
|                                  | dNTP Mix                       | Liquid.                                |
|                                  | AffinityScript RNase Block Mix | Liquid.                                |
|                                  | 5x Transcription Buffer        | Liquid.                                |
|                                  | NTP Mix                        | Liquid.                                |
|                                  | T7 RNA Polymerase Blend        | Liquid.                                |
|                                  | Nuclease-Free Water            | Liquid.                                |
|                                  | WT Primer Mix                  | Liquid.                                |
| <b>Flash point</b>               | T7 Primer                      | [Product does not sustain combustion.] |
|                                  | 5X First Strand Buffer         | [Product does not sustain combustion.] |
|                                  | 0.1 M DTT                      | [Product does not sustain combustion.] |
|                                  | dNTP Mix                       | [Product does not sustain combustion.] |
|                                  | AffinityScript RNase Block Mix | [Product does not sustain combustion.] |
|                                  | 5x Transcription Buffer        | [Product does not sustain combustion.] |
|                                  | NTP Mix                        | [Product does not sustain combustion.] |
|                                  | T7 RNA Polymerase Blend        | [Product does not sustain combustion.] |
|                                  | Nuclease-Free Water            | [Product does not sustain combustion.] |
|                                  | WT Primer Mix                  | Not available.                         |
| <b>Auto-ignition temperature</b> | T7 Primer                      | Not available.                         |
|                                  | 5X First Strand Buffer         | Not available.                         |
|                                  | 0.1 M DTT                      | Not available.                         |
|                                  | dNTP Mix                       | Not available.                         |
|                                  | AffinityScript RNase Block Mix | Not available.                         |
|                                  | 5x Transcription Buffer        | Not available.                         |
|                                  | NTP Mix                        | Not available.                         |
|                                  | T7 RNA Polymerase Blend        | Not available.                         |
|                                  | Nuclease-Free Water            | Not available.                         |
|                                  | WT Primer Mix                  | Not available.                         |

## 9. Physical and chemical properties

<b>Flammable limits</b>	:	T7 Primer	Not available.
		5X First Strand Buffer	Not available.
		0.1 M DTT	Not available.
		dNTP Mix	Not available.
		AffinityScript RNase Block Mix	Not available.
		5x Transcription Buffer	Not available.
		NTP Mix	Not available.
		T7 RNA Polymerase Blend	Not available.
		Nuclease-Free Water	Not available.
	WT Primer Mix	Not available.	
<b>Color</b>	:	T7 Primer	Not available.
		5X First Strand Buffer	Not available.
		0.1 M DTT	Not available.
		dNTP Mix	Not available.
		AffinityScript RNase Block Mix	Not available.
		5x Transcription Buffer	Not available.
		NTP Mix	Not available.
		T7 RNA Polymerase Blend	Not available.
		Nuclease-Free Water	Colorless.
	WT Primer Mix	Not available.	
<b>Odor</b>	:	T7 Primer	Not available.
		5X First Strand Buffer	Not available.
		0.1 M DTT	Not available.
		dNTP Mix	Not available.
		AffinityScript RNase Block Mix	Not available.
		5x Transcription Buffer	Not available.
		NTP Mix	Not available.
		T7 RNA Polymerase Blend	Not available.
		Nuclease-Free Water	Odorless.
	WT Primer Mix	Not available.	
<b>pH</b>	:	T7 Primer	Not available.
		5X First Strand Buffer	Not available.
		0.1 M DTT	Not available.
		dNTP Mix	Not available.
		AffinityScript RNase Block Mix	Not available.
		5x Transcription Buffer	Not available.
		NTP Mix	Not available.
		T7 RNA Polymerase Blend	Not available.
		Nuclease-Free Water	Not available.
	WT Primer Mix	7.5 to 8	
<b>Boiling/condensation point</b>	:	T7 Primer	100°C (212°F)
		5X First Strand Buffer	Not available.
		0.1 M DTT	100°C (212°F)
		dNTP Mix	100°C (212°F)
		AffinityScript RNase Block Mix	Not available.
		5x Transcription Buffer	Not available.
		NTP Mix	100°C (212°F)
		T7 RNA Polymerase Blend	Not available.
		Nuclease-Free Water	100°C (212°F)
	WT Primer Mix	100°C (212°F)	
<b>Melting/freezing point</b>	:	T7 Primer	0°C (32°F)
		5X First Strand Buffer	Not available.
		0.1 M DTT	0°C (32°F)
		dNTP Mix	0°C (32°F)
		AffinityScript RNase Block Mix	Not available.
		5x Transcription Buffer	Not available.
		NTP Mix	0°C (32°F)
	T7 RNA Polymerase Blend	Not available.	

## 9. Physical and chemical properties

	Nuclease-Free Water	0°C (32°F)
	WT Primer Mix	0°C (32°F)
<b>Specific gravity</b>	: T7 Primer	Not available.
	5X First Strand Buffer	Not available.
	0.1 M DTT	Not available.
	dNTP Mix	Not available.
	AffinityScript RNase Block Mix	Not available.
	5x Transcription Buffer	Not available.
	NTP Mix	Not available.
	T7 RNA Polymerase Blend	Not available.
	Nuclease-Free Water	Not available.
	WT Primer Mix	Not available.
<b>Vapor pressure</b>	: T7 Primer	Not available.
	5X First Strand Buffer	Not available.
	0.1 M DTT	Not available.
	dNTP Mix	Not available.
	AffinityScript RNase Block Mix	Not available.
	5x Transcription Buffer	Not available.
	NTP Mix	Not available.
	T7 RNA Polymerase Blend	Not available.
	Nuclease-Free Water	Not available.
	WT Primer Mix	Not available.
<b>Vapor density</b>	: T7 Primer	Not available.
	5X First Strand Buffer	Not available.
	0.1 M DTT	Not available.
	dNTP Mix	Not available.
	AffinityScript RNase Block Mix	Not available.
	5x Transcription Buffer	Not available.
	NTP Mix	Not available.
	T7 RNA Polymerase Blend	Not available.
	Nuclease-Free Water	Not available.
	WT Primer Mix	Not available.
<b>Odor threshold</b>	: T7 Primer	Not available.
	5X First Strand Buffer	Not available.
	0.1 M DTT	Not available.
	dNTP Mix	Not available.
	AffinityScript RNase Block Mix	Not available.
	5x Transcription Buffer	Not available.
	NTP Mix	Not available.
	T7 RNA Polymerase Blend	Not available.
	Nuclease-Free Water	Not available.
	WT Primer Mix	Not available.
<b>Evaporation rate</b>	: T7 Primer	Not available.
	5X First Strand Buffer	Not available.
	0.1 M DTT	Not available.
	dNTP Mix	Not available.
	AffinityScript RNase Block Mix	Not available.
	5x Transcription Buffer	Not available.
	NTP Mix	Not available.
	T7 RNA Polymerase Blend	Not available.
	Nuclease-Free Water	Not available.
	WT Primer Mix	Not available.

## 9. Physical and chemical properties

<b>Viscosity</b>	: T7 Primer 5X First Strand Buffer 0.1 M DTT dNTP Mix AffinityScript RNase Block Mix 5x Transcription Buffer NTP Mix T7 RNA Polymerase Blend Nuclease-Free Water WT Primer Mix	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
<b>Solubility</b>	: T7 Primer  5X First Strand Buffer  0.1 M DTT  dNTP Mix  AffinityScript RNase Block Mix  5x Transcription Buffer  NTP Mix  T7 RNA Polymerase Blend  Nuclease-Free Water  WT Primer Mix	Easily soluble in the following materials: cold water and hot water.  Easily soluble in the following materials: cold water and hot water.  Easily soluble in the following materials: cold water and hot water.  Easily soluble in the following materials: cold water and hot water.  Easily soluble in the following materials: cold water and hot water.  Easily soluble in the following materials: cold water and hot water.  Easily soluble in the following materials: cold water and hot water.  Easily soluble in the following materials: cold water and hot water.  Easily soluble in the following materials: cold water and hot water.  Easily soluble in the following materials: cold water and hot water.

## 10. Stability and reactivity

<b>Chemical stability</b>	: T7 Primer 5X First Strand Buffer 0.1 M DTT dNTP Mix AffinityScript RNase Block Mix 5x Transcription Buffer NTP Mix T7 RNA Polymerase Blend Nuclease-Free Water WT Primer Mix	The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable.
<b>Conditions to avoid</b>	: T7 Primer 5X First Strand Buffer 0.1 M DTT dNTP Mix AffinityScript RNase Block Mix 5x Transcription Buffer NTP Mix T7 RNA Polymerase Blend Nuclease-Free Water WT Primer Mix	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.



## 10. Stability and reactivity

<b>Materials to avoid</b>	<ul style="list-style-type: none"> <li>: T7 Primer</li> <li>5X First Strand Buffer</li> <li>0.1 M DTT</li> <li>dNTP Mix</li> <li>AffinityScript RNase Block Mix</li> <li>5x Transcription Buffer</li> <li>NTP Mix</li> <li>T7 RNA Polymerase Blend</li> <li>Nuclease-Free Water</li> <li>WT Primer Mix</li> </ul>	<ul style="list-style-type: none"> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> </ul>
<b>Hazardous decomposition products</b>	<ul style="list-style-type: none"> <li>: T7 Primer</li> <li>5X First Strand Buffer</li> <li>0.1 M DTT</li> <li>dNTP Mix</li> <li>AffinityScript RNase Block Mix</li> <li>5x Transcription Buffer</li> <li>NTP Mix</li> <li>T7 RNA Polymerase Blend</li> <li>Nuclease-Free Water</li> <li>WT Primer Mix</li> </ul>	<ul style="list-style-type: none"> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> </ul>
<b>Possibility of hazardous reactions</b>	<ul style="list-style-type: none"> <li>: T7 Primer</li> <li>5X First Strand Buffer</li> <li>0.1 M DTT</li> <li>dNTP Mix</li> <li>AffinityScript RNase Block Mix</li> <li>5x Transcription Buffer</li> <li>NTP Mix</li> <li>T7 RNA Polymerase Blend</li> <li>Nuclease-Free Water</li> <li>WT Primer Mix</li> </ul>	<ul style="list-style-type: none"> <li>Under normal conditions of storage and use, hazardous reactions will not occur.</li> <li>Under normal conditions of storage and use, hazardous reactions will not occur.</li> <li>Under normal conditions of storage and use, hazardous reactions will not occur.</li> <li>Under normal conditions of storage and use, hazardous reactions will not occur.</li> <li>Under normal conditions of storage and use, hazardous reactions will not occur.</li> <li>Under normal conditions of storage and use, hazardous reactions will not occur.</li> <li>Under normal conditions of storage and use, hazardous reactions will not occur.</li> <li>Under normal conditions of storage and use, hazardous reactions will not occur.</li> <li>Under normal conditions of storage and use, hazardous reactions will not occur.</li> <li>Under normal conditions of storage and use, hazardous reactions will not occur.</li> </ul>

## 10. Stability and reactivity

hazardous reactions will not occur.

## 11. Toxicological information

### Acute toxicity

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

### Irritation/Corrosion

**Conclusion/Summary** : Not available.

### Sensitizer

**Conclusion/Summary** : Not available.

### Chronic toxicity / Carcinogenicity / Mutagenicity / Teratogenicity / Reproductive toxicity

Not available.

**Other adverse symptoms** :

T7 Primer	Not available.
5X First Strand Buffer	Not available.
0.1 M DTT	Not available.
dNTP Mix	Not available.
AffinityScript RNase Block Mix	Not available.
5x Transcription Buffer	Not available.
NTP Mix	Not available.
T7 RNA Polymerase Blend	Not available.
Nuclease-Free Water	Not available.
WT Primer Mix	Not available.

## 12. Ecological information

**Ecotoxicity** : May cause long-term adverse effects in the aquatic environment.

### Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
<b>AffinityScript RNase Block Mix</b> Glycerol	Acute LC50 54 to 57 ml/L Fresh water	Fish - Oncorhynchus mykiss - 0.9 g	96 hours
<b>5x Transcription Buffer</b> Polyethylene glycol	Acute LC50 >1000000 ug/L Fresh water	Fish - Salmo salar - Parr - 8.2 to 11.7 cm - 5.1 to 14.1 g	96 hours
<b>T7 RNA Polymerase Blend</b> Glycerol	Acute LC50 54 to 57 ml/L Fresh water	Fish - Oncorhynchus mykiss - 0.9 g	96 hours

**Partition coefficient: n-octanol/water** :

T7 Primer	Not available.
5X First Strand Buffer	Not available.
0.1 M DTT	Not available.
dNTP Mix	Not available.
AffinityScript RNase Block Mix	Not available.
5x Transcription Buffer	Not available.
NTP Mix	Not available.
T7 RNA Polymerase Blend	Not available.
Nuclease-Free Water	Not available.
WT Primer Mix	Not available.

## 12. Ecological information

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

## 13. Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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

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

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

## 14. Transport information

### Regulatory information

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

## 15. Regulatory information

<b>WHMIS (Canada)</b>	: T7 Primer 5X First Strand Buffer 0.1 M DTT dNTP Mix AffinityScript RNase Block Mix 5x Transcription Buffer	Not controlled under WHMIS (Canada). Not controlled under WHMIS (Canada). Not controlled under WHMIS (Canada). Not controlled under WHMIS (Canada). Not controlled under WHMIS (Canada). Class D-2B: Material causing other toxic effects (Toxic).
	NTP Mix T7 RNA Polymerase Blend Nuclease-Free Water WT Primer Mix	Not controlled under WHMIS (Canada). Not controlled under WHMIS (Canada). Not controlled under WHMIS (Canada). Not controlled under WHMIS (Canada).

### Canadian lists

**Canadian NPRI** : None of the components are listed.  
**CEPA Toxic substances** : None of the components are listed.  
**Canada inventory** : Not determined.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

## 16. Other information

<b>Label requirements</b>	: T7 Primer	NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.
	5X First Strand Buffer	CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

## 16. Other information

0.1 M DTT	NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.
dNTP Mix	NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.
AffinityScript RNase Block Mix	MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.
5x Transcription Buffer	CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
NTP Mix	NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.
T7 RNA Polymerase Blend	MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.
Nuclease-Free Water	NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.
WT Primer Mix	NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

**Date of issue** : 10/21/2010  
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**Version** : 1

📌 Indicates information that has changed from previously issued version.

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