

SAFETY DATA SHEET



SureGuide gRNA Synthesis Kit, Part Number 5190-7719

Section 1. Identification

Product identifier	: SureGuide gRNA Synthesis Kit, Part Number 5190-7719	
Part No. (Chemical Kit)	: 5190-7719	
Part No.	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> EPC Treated Water T7 Promoter Forward Primer Control Template DTT RNase Free DNase T7 RNA Polymerase 100 mM rATP 100 mM rGTP 100 mM rUTP 100 mM rCTP 5X RNAMaxx Transcription Buffer Yeast Pyrophosphatase RNase Block gRNA Binding Buffer 5X gRNA Wash Buffer gRNA Elution Buffer 	<ul style="list-style-type: none"> 200420-58 5190-7542 5190-7543 5190-7544 5190-7545 200339-51 200339-52 200339-53 200339-54 200339-55 200339-56 200339-57 200339-58 5190-7546 5190-7547 5190-7548

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

Analytical reagent.

<input checked="" type="checkbox"/> EPC Treated Water	1 ml
T7 Promoter Forward Primer	0.025 ml
Control Template	0.05 ml
DTT	0.05 ml
RNase Free DNase	0.05 ml (500 U 10 U/μl)
T7 RNA Polymerase	0.05 ml (50 μl 200 U/μl)
100 mM rATP	0.05 ml
100 mM rGTP	0.05 ml
100 mM rUTP	0.05 ml
100 mM rCTP	0.05 ml
5X RNAMaxx Transcription Buffer	0.25 ml
Yeast Pyrophosphatase	0.025 ml (25 μl 0.75 U/μl)
RNase Block	0.05 ml
gRNA Binding Buffer	5 ml
5X gRNA Wash Buffer	7 ml
gRNA Elution Buffer	2.5 ml

Supplier/Manufacturer : Agilent Technologies Australia Pty Ltd
679 Springvale Road
Mulgrave
Victoria 3170, Australia
1800 802 402

Emergency telephone number (with hours of operation) : CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture

DTT

H315 SKIN CORROSION/IRRITATION - Category 2
H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A

gRNA Binding Buffer

H302 ACUTE TOXICITY (oral) - Category 4
H332 ACUTE TOXICITY (inhalation) - Category 4
H412 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

DTT	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 10 - 30%
	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%
RNase Free DNase	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%
T7 RNA Polymerase	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%
100 mM rATP	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
100 mM rGTP	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10%
100 mM rUTP	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10%
100 mM rCTP	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10%
5X RNAMaxx Transcription Buffer	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10%
Yeast Pyrophosphatase	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%
RNase Block	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%
100 mM rATP	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 5%
100 mM rGTP	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1.3%
100 mM rUTP	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 4.8%
100 mM rCTP	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 4.8%
5X RNAMaxx Transcription Buffer	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 3.2%

GHS label elements

Section 2. Hazard(s) identification

Hazard pictograms

: 



gRNA Binding Buffer



Signal word

<input checked="" type="checkbox"/> EPC Treated Water	No signal word.
T7 Promoter Forward Primer	No signal word.
Control Template	No signal word.
DTT	WARNING
RNase Free DNase	No signal word.
T7 RNA Polymerase	No signal word.
100 mM rATP	No signal word.
100 mM rGTP	No signal word.
100 mM rUTP	No signal word.
100 mM rCTP	No signal word.
5X RNAMaxx Transcription Buffer	No signal word.
Yeast Pyrophosphatase	No signal word.
RNase Block	No signal word.
gRNA Binding Buffer	WARNING
5X gRNA Wash Buffer	No signal word.
gRNA Elution Buffer	No signal word.

Hazard statements

<input checked="" type="checkbox"/> EPC Treated Water	No known significant effects or critical hazards.
T7 Promoter Forward Primer	No known significant effects or critical hazards.
Control Template	No known significant effects or critical hazards.
DTT	H319 - Causes serious eye irritation. H315 - Causes skin irritation.
RNase Free DNase	No known significant effects or critical hazards.
T7 RNA Polymerase	No known significant effects or critical hazards.
100 mM rATP	No known significant effects or critical hazards.
100 mM rGTP	No known significant effects or critical hazards.
100 mM rUTP	No known significant effects or critical hazards.
100 mM rCTP	No known significant effects or critical hazards.
5X RNAMaxx Transcription Buffer	No known significant effects or critical hazards.
Yeast Pyrophosphatase	No known significant effects or critical hazards.
RNase Block	No known significant effects or critical hazards.
gRNA Binding Buffer	H302 + H332 - Harmful if swallowed or if inhaled. H412 - Harmful to aquatic life with long lasting effects.
5X gRNA Wash Buffer	No known significant effects or critical hazards.
gRNA Elution Buffer	No known significant effects or critical hazards.

Precautionary statements

Prevention

<input checked="" type="checkbox"/> EPC Treated Water	Not applicable.
T7 Promoter Forward Primer	Not applicable.
Control Template	Not applicable.
DTT	P280 - Wear protective gloves. Wear eye or face protection. P264 - Wash hands thoroughly after handling.
RNase Free DNase	Not applicable.
T7 RNA Polymerase	Not applicable.
100 mM rATP	Not applicable.
100 mM rGTP	Not applicable.
100 mM rUTP	Not applicable.
100 mM rCTP	Not applicable.
5X RNAMaxx Transcription Buffer	Not applicable.
Yeast Pyrophosphatase	Not applicable.

Section 2. Hazard(s) identification

	RNase Block	Not applicable.
	gRNA Binding Buffer	P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid release to the environment. P261 - Avoid breathing vapour. P270 - Do not eat, drink or smoke when using this product. P264 - Wash hands thoroughly after handling.
	5X gRNA Wash Buffer	Not applicable.
	gRNA Elution Buffer	Not applicable.
Response	: <input checked="" type="checkbox"/> DEPC Treated Water	Not applicable.
	T7 Promoter Forward Primer	Not applicable.
	Control Template	Not applicable.
	DTT	P302 + P352 + P362 + P363 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. P332 + P313 - If skin irritation occurs: Get medical attention. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
	RNase Free DNase	Not applicable.
	T7 RNA Polymerase	Not applicable.
	100 mM rATP	Not applicable.
	100 mM rGTP	Not applicable.
	100 mM rUTP	Not applicable.
	100 mM rCTP	Not applicable.
	5X RNAMaxx Transcription Buffer	Not applicable.
	Yeast Pyrophosphatase	Not applicable.
	RNase Block	Not applicable.
	gRNA Binding Buffer	P304 + P340 + P312 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.
	5X gRNA Wash Buffer	Not applicable.
	gRNA Elution Buffer	Not applicable.
Storage	: <input checked="" type="checkbox"/> DEPC Treated Water	Not applicable.
	T7 Promoter Forward Primer	Not applicable.
	Control Template	Not applicable.
	DTT	Not applicable.
	RNase Free DNase	Not applicable.
	T7 RNA Polymerase	Not applicable.
	100 mM rATP	Not applicable.
	100 mM rGTP	Not applicable.
	100 mM rUTP	Not applicable.
	100 mM rCTP	Not applicable.
	5X RNAMaxx Transcription Buffer	Not applicable.
	Yeast Pyrophosphatase	Not applicable.
	RNase Block	Not applicable.
	gRNA Binding Buffer	Not applicable.
	5X gRNA Wash Buffer	Not applicable.
	gRNA Elution Buffer	Not applicable.

Section 2. Hazard(s) identification

Disposal	:	☑EPC Treated Water	Not applicable.
		T7 Promoter Forward Primer	Not applicable.
		Control Template	Not applicable.
		DTT	Not applicable.
		RNase Free DNase	Not applicable.
		T7 RNA Polymerase	Not applicable.
		100 mM rATP	Not applicable.
		100 mM rGTP	Not applicable.
		100 mM rUTP	Not applicable.
		100 mM rCTP	Not applicable.
		5X RNAMaxx Transcription Buffer	Not applicable.
		Yeast Pyrophosphatase	Not applicable.
		RNase Block	Not applicable.
		gRNA Binding Buffer	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	5X gRNA Wash Buffer	Not applicable.	
	gRNA Elution Buffer	Not applicable.	
Supplemental label elements			
Additional warning phrases	:	☑EPC Treated Water	Not applicable.
		T7 Promoter Forward Primer	Not applicable.
		Control Template	Not applicable.
		DTT	Not applicable.
		RNase Free DNase	Not applicable.
		T7 RNA Polymerase	Not applicable.
		100 mM rATP	Not applicable.
		100 mM rGTP	Not applicable.
		100 mM rUTP	Not applicable.
		100 mM rCTP	Not applicable.
		5X RNAMaxx Transcription Buffer	Not applicable.
		Yeast Pyrophosphatase	Not applicable.
		RNase Block	Not applicable.
		gRNA Binding Buffer	Not applicable.
	5X gRNA Wash Buffer	Not applicable.	
	gRNA Elution Buffer	Not applicable.	
Other hazards which do not result in classification	:	☑EPC Treated Water	None known.
		T7 Promoter Forward Primer	None known.
		Control Template	None known.
		DTT	None known.
		RNase Free DNase	None known.
		T7 RNA Polymerase	None known.
		100 mM rATP	None known.
		100 mM rGTP	None known.
		100 mM rUTP	None known.
		100 mM rCTP	None known.
		5X RNAMaxx Transcription Buffer	None known.
		Yeast Pyrophosphatase	None known.
		RNase Block	None known.
		gRNA Binding Buffer	None known.
	5X gRNA Wash Buffer	None known.	
	gRNA Elution Buffer	None known.	

Section 3. Composition and ingredient information

Substance/mixture	:	DEPC Treated Water	Substance
		T7 Promoter Forward Primer	Mixture
		Control Template	Mixture
		DTT	Mixture
		RNase Free DNase	Mixture
		T7 RNA Polymerase	Mixture
		100 mM rATP	Mixture
		100 mM rGTP	Mixture
		100 mM rUTP	Mixture
		100 mM rCTP	Mixture
		5X RNAMaxx Transcription Buffer	Mixture
		Yeast Pyrophosphatase	Mixture
		RNase Block	Mixture
		gRNA Binding Buffer	Mixture
		5X gRNA Wash Buffer	Mixture
		gRNA Elution Buffer	Mixture

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
DEPC Treated Water Water	100	7732-18-5
DTT (R*,R*)-1,4-Dimercaptobutane-2,3-diol	≥10 - <20	3483-12-3
RNase Free DNase Glycerol	≥30 - ≤60	56-81-5
T7 RNA Polymerase Glycerol	≥30 - ≤60	56-81-5
Yeast Pyrophosphatase Glycerol	≥30 - ≤60	56-81-5
RNase Block Glycerol	≥30 - ≤60	56-81-5
gRNA Binding Buffer Guanidinium thiocyanate	≥30 - <55	593-84-0

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

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

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	:	DEPC Treated 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 Promoter Forward 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.
		Control Template	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get

Section 4. First aid measures

DTT	medical attention if irritation occurs. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
RNase Free DNase	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	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.
100 mM rATP	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.
100 mM rGTP	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.
100 mM rUTP	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.
100 mM rCTP	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 RNAMaxx 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.
Yeast Pyrophosphatase	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.
RNase Block	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.
gRNA Binding Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
5X gRNA Wash 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.
gRNA Elution 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.
Inhalation : DEPC Treated Water	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
T7 Promoter Forward Primer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Control Template	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

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DTT	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
RNase Free DNase	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
T7 RNA Polymerase	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
100 mM rATP	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.
100 mM rGTP	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.
100 mM rUTP	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.
100 mM rCTP	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 RNAMaxx 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.
Yeast Pyrophosphatase	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
RNase Block	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
gRNA Binding Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If

Section 4. First aid measures

necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

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

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

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

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Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water.

Skin contact

: DEPC Treated Water

5X gRNA Wash Buffer

gRNA Elution Buffer

T7 Promoter Forward Primer

Control Template

DTT

RNase Free DNase

T7 RNA Polymerase

100 mM rATP

100 mM rGTP

100 mM rUTP

100 mM rCTP

5X RNAMaxx Transcription Buffer

Yeast Pyrophosphatase

RNase Block


gRNA Binding Buffer

5X gRNA Wash Buffer

gRNA Elution Buffer

Section 4. First aid measures

Ingestion

:  EPC Treated Water	Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
T7 Promoter Forward 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.
Control Template	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.
DTT	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
RNase Free DNase	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	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.
100 mM rATP	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.
100 mM rGTP	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

Section 4. First aid measures

	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.
100 mM rUTP	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.
100 mM rCTP	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 RNAMaxx 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.
Yeast Pyrophosphatase	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.
RNase Block	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.
gRNA Binding Buffer	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
5X gRNA Wash 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.
gRNA Elution Buffer	Wash out mouth with water. Remove victim to fresh

Section 4. First aid measures

Ingestion	:	<input checked="" type="checkbox"/> EPC Treated Water	No known significant effects or critical hazards.
		T7 Promoter Forward Primer	No known significant effects or critical hazards.
		Control Template	No known significant effects or critical hazards.
		DTT	No known significant effects or critical hazards.
		RNase Free DNase	No known significant effects or critical hazards.
		T7 RNA Polymerase	No known significant effects or critical hazards.
		100 mM rATP	No known significant effects or critical hazards.
		100 mM rGTP	No known significant effects or critical hazards.
		100 mM rUTP	No known significant effects or critical hazards.
		100 mM rCTP	No known significant effects or critical hazards.
		5X RNAMaxx Transcription Buffer	No known significant effects or critical hazards.
		Yeast Pyrophosphatase	No known significant effects or critical hazards.
		RNase Block	No known significant effects or critical hazards.
		gRNA Binding Buffer	Harmful if swallowed.
	5X gRNA Wash Buffer	No known significant effects or critical hazards.	
	gRNA Elution Buffer	No known significant effects or critical hazards.	

Over-exposure signs/symptoms

Eye contact	:	<input checked="" type="checkbox"/> EPC Treated Water	No specific data.
		T7 Promoter Forward Primer	No specific data.
		Control Template	No specific data.
		DTT	Adverse symptoms may include the following: pain or irritation watering redness
		RNase Free DNase	No specific data.
		T7 RNA Polymerase	No specific data.
		100 mM rATP	No specific data.
		100 mM rGTP	No specific data.
		100 mM rUTP	No specific data.
		100 mM rCTP	No specific data.
		5X RNAMaxx Transcription Buffer	No specific data.
		Yeast Pyrophosphatase	No specific data.
		RNase Block	No specific data.
		gRNA Binding Buffer	No specific data.
	5X gRNA Wash Buffer	No specific data.	
	gRNA Elution Buffer	No specific data.	

Inhalation	:	<input checked="" type="checkbox"/> EPC Treated Water	No specific data.
		T7 Promoter Forward Primer	No specific data.
		Control Template	No specific data.
		DTT	No specific data.
		RNase Free DNase	No specific data.
		T7 RNA Polymerase	No specific data.
		100 mM rATP	No specific data.
		100 mM rGTP	No specific data.
		100 mM rUTP	No specific data.
		100 mM rCTP	No specific data.
		5X RNAMaxx Transcription Buffer	No specific data.
		Yeast Pyrophosphatase	No specific data.
		RNase Block	No specific data.
		gRNA Binding Buffer	No specific data.
	5X gRNA Wash Buffer	No specific data.	
	gRNA Elution Buffer	No specific data.	

Section 4. First aid measures

Skin contact	:	DEPC Treated Water	No specific data.
		T7 Promoter Forward Primer	No specific data.
		Control Template	No specific data.
		DTT	Adverse symptoms may include the following: irritation redness
		RNase Free DNase	No specific data.
		T7 RNA Polymerase	No specific data.
		100 mM rATP	No specific data.
		100 mM rGTP	No specific data.
		100 mM rUTP	No specific data.
		100 mM rCTP	No specific data.
		5X RNAMaxx Transcription Buffer	No specific data.
		Yeast Pyrophosphatase	No specific data.
		RNase Block	No specific data.
		gRNA Binding Buffer	No specific data.
		5X gRNA Wash Buffer	No specific data.
gRNA Elution Buffer	No specific data.		
Ingestion	:	DEPC Treated Water	No specific data.
		T7 Promoter Forward Primer	No specific data.
		Control Template	No specific data.
		DTT	No specific data.
		RNase Free DNase	No specific data.
		T7 RNA Polymerase	No specific data.
		100 mM rATP	No specific data.
		100 mM rGTP	No specific data.
		100 mM rUTP	No specific data.
		100 mM rCTP	No specific data.
		5X RNAMaxx Transcription Buffer	No specific data.
		Yeast Pyrophosphatase	No specific data.
		RNase Block	No specific data.
		gRNA Binding Buffer	No specific data.
		5X gRNA Wash Buffer	No specific data.
gRNA Elution Buffer	No specific data.		

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

Notes to physician	:	DEPC Treated Water	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		T7 Promoter Forward Primer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Control Template	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		DTT	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		RNase Free DNase	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		T7 RNA Polymerase	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		100 mM rATP	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.
		100 mM rGTP	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed

Section 4. First aid measures

100 mM rUTP	person may need to be kept under medical surveillance for 48 hours.
100 mM rCTP	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 RNAMaxx 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.
Yeast Pyrophosphatase	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
RNase Block	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
gRNA Binding 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.
5X gRNA Wash Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
gRNA Elution Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments

<input checked="" type="checkbox"/> DEPC Treated Water	No specific treatment.
T7 Promoter Forward Primer	No specific treatment.
Control Template	No specific treatment.
DTT	No specific treatment.
RNase Free DNase	No specific treatment.
T7 RNA Polymerase	No specific treatment.
100 mM rATP	No specific treatment.
100 mM rGTP	No specific treatment.
100 mM rUTP	No specific treatment.
100 mM rCTP	No specific treatment.
5X RNAMaxx Transcription Buffer	No specific treatment.
Yeast Pyrophosphatase	No specific treatment.
RNase Block	No specific treatment.
gRNA Binding Buffer	No specific treatment.
5X gRNA Wash Buffer	No specific treatment.
gRNA Elution Buffer	No specific treatment.

Protection of first-aiders

<input checked="" type="checkbox"/> DEPC Treated Water	No action shall be taken involving any personal risk or without suitable training.
T7 Promoter Forward Primer	No action shall be taken involving any personal risk or without suitable training.
Control Template	No action shall be taken involving any personal risk or without suitable training.
DTT	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.
RNase Free DNase	No action shall be taken involving any personal risk or without suitable training.
T7 RNA Polymerase	No action shall be taken involving any personal risk or without suitable training.
100 mM rATP	No action shall be taken involving any personal risk or without suitable training.

Section 4. First aid measures


100 mM rGTP	No action shall be taken involving any personal risk or without suitable training.
100 mM rUTP	No action shall be taken involving any personal risk or without suitable training.
100 mM rCTP	No action shall be taken involving any personal risk or without suitable training.
5X RNAMaxx Transcription Buffer	No action shall be taken involving any personal risk or without suitable training.
Yeast Pyrophosphatase	No action shall be taken involving any personal risk or without suitable training.
RNase Block	No action shall be taken involving any personal risk or without suitable training.
gRNA Binding 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.
5X gRNA Wash Buffer	No action shall be taken involving any personal risk or without suitable training.
gRNA Elution Buffer	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media

:  EPC Treated Water	Use an extinguishing agent suitable for the surrounding fire.
T7 Promoter Forward Primer	Use an extinguishing agent suitable for the surrounding fire.
Control Template	Use an extinguishing agent suitable for the surrounding fire.
DTT	Use an extinguishing agent suitable for the surrounding fire.
RNase Free DNase	Use an extinguishing agent suitable for the surrounding fire.
T7 RNA Polymerase	Use an extinguishing agent suitable for the surrounding fire.
100 mM rATP	Use an extinguishing agent suitable for the surrounding fire.
100 mM rGTP	Use an extinguishing agent suitable for the surrounding fire.
100 mM rUTP	Use an extinguishing agent suitable for the surrounding fire.
100 mM rCTP	Use an extinguishing agent suitable for the surrounding fire.
5X RNAMaxx Transcription Buffer	Use an extinguishing agent suitable for the surrounding fire.
Yeast Pyrophosphatase	Use an extinguishing agent suitable for the surrounding fire.
RNase Block	Use an extinguishing agent suitable for the surrounding fire.
gRNA Binding Buffer	Use an extinguishing agent suitable for the surrounding fire.
5X gRNA Wash Buffer	Use an extinguishing agent suitable for the surrounding fire.
gRNA Elution Buffer	Use an extinguishing agent suitable for the surrounding fire.

Section 5. Firefighting measures

RNase Free DNase	Decomposition products may include the following materials: carbon dioxide carbon monoxide
T7 RNA Polymerase	Decomposition products may include the following materials: carbon dioxide carbon monoxide
100 mM rATP	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides metal oxide/oxides
100 mM rGTP	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides metal oxide/oxides
100 mM rUTP	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides metal oxide/oxides
100 mM rCTP	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides metal oxide/oxides
5X RNAMaxx Transcription Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
Yeast Pyrophosphatase	Decomposition products may include the following materials: carbon dioxide carbon monoxide
RNase Block	Decomposition products may include the following materials: carbon dioxide carbon monoxide
gRNA Binding Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides
5X gRNA Wash Buffer	No specific data.
gRNA Elution Buffer	No specific data.

Section 5. Firefighting measures

Special protective actions for fire-fighters	: DEPC Treated 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 Promoter Forward 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.
	Control Template	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.
	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.
	RNase Free DNase	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	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.
	100 mM rATP	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.
	100 mM rGTP	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.
	100 mM rUTP	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.
	100 mM rCTP	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 RNAMaxx 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.
	Yeast Pyrophosphatase	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.
	RNase Block	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.
	gRNA Binding 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.
	5X gRNA Wash 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.
	gRNA Elution 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.

Section 5. Firefighting measures

Special protective equipment for fire-fighters

:  EPC Treated Water

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

T7 Promoter Forward Primer

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Control Template

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

DTT

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

RNase Free DNase

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

T7 RNA Polymerase

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

100 mM rATP

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

100 mM rGTP

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

100 mM rUTP

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

100 mM rCTP

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

5X RNAMaxx 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.

Yeast Pyrophosphatase

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

RNase Block

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

gRNA Binding Buffer

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

5X gRNA Wash Buffer

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

gRNA Elution Buffer

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive

Section 5. Firefighting measures


pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: <input checked="" type="checkbox"/> EPC Treated 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 Promoter Forward 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.
	Control Template	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.
	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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	RNase Free DNase	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	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.
	100 mM rATP	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.
	100 mM rGTP	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.
	100 mM rUTP	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.
	100 mM rCTP	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding

Section 6. Accidental release measures

	areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
5X RNAMaxx 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.
Yeast Pyrophosphatase	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.
RNase Block	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.
gRNA Binding 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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
5X gRNA Wash 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.
gRNA Elution 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.
For emergency responders :  EPC Treated 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 Promoter Forward 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".
Control Template	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".
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".
RNase Free DNase	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	If specialised clothing is required to deal with the

Section 6. Accidental release measures

100 mM rATP	spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
100 mM rGTP	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".
100 mM rUTP	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".
100 mM rCTP	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 RNAMaxx 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".
Yeast Pyrophosphatase	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".
RNase Block	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".
gRNA Binding 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".
5X gRNA Wash 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".
gRNA Elution 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".

Environmental precautions :  EPC Treated 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 Promoter Forward 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).
Control Template	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).
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,

Section 6. Accidental release measures

RNase Free DNase	soil or air). 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	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).
100 mM rATP	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).
100 mM rGTP	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).
100 mM rUTP	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).
100 mM rCTP	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 RNAMaxx 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).
Yeast Pyrophosphatase	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).
RNase Block	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).
gRNA Binding 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). Water polluting material. May be harmful to the environment if released in large quantities.
5X gRNA Wash 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).
gRNA Elution 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).

Section 6. Accidental release measures

Methods and material for containment and cleaning up

Methods for cleaning up :  EPC Treated 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 Promoter Forward 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.
Control Template	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.
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.
RNase Free DNase	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	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.
100 mM rATP	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.
100 mM rGTP	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.
100 mM rUTP	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.
100 mM rCTP	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 RNAMaxx Transcription Buffer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble.

Section 6. Accidental release measures


	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.
Yeast Pyrophosphatase	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.
RNase Block	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.
gRNA Binding 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.
5X gRNA Wash 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.
gRNA Elution 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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	:	☑EPC Treated Water	Put on appropriate personal protective equipment (see Section 8).
		T7 Promoter Forward Primer	Put on appropriate personal protective equipment (see Section 8).
		Control Template	Put on appropriate personal protective equipment (see Section 8).
		DTT	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
		RNase Free DNase	Put on appropriate personal protective equipment (see Section 8).
		T7 RNA Polymerase	Put on appropriate personal protective equipment (see Section 8).
		100 mM rATP	Put on appropriate personal protective equipment (see Section 8).
		100 mM rGTP	Put on appropriate personal protective equipment (see Section 8).
		100 mM rUTP	Put on appropriate personal protective equipment (see Section 8).
		100 mM rCTP	Put on appropriate personal protective equipment (see Section 8).

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5X RNAMaxx Transcription Buffer	Put on appropriate personal protective equipment (see Section 8).
Yeast Pyrophosphatase	Put on appropriate personal protective equipment (see Section 8).
RNase Block	Put on appropriate personal protective equipment (see Section 8).
gRNA Binding Buffer	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. 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 gRNA Wash Buffer	Put on appropriate personal protective equipment (see Section 8).
gRNA Elution Buffer	Put on appropriate personal protective equipment (see Section 8).
:  EPC Treated 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 Promoter Forward 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.
Control Template	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.
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.
RNase Free DNase	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	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.
100 mM rATP	Eating, drinking and smoking should be prohibited in

Advice on general occupational hygiene

Section 7. Handling and storage

	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.
100 mM rGTP	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.
100 mM rUTP	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.
100 mM rCTP	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 RNAMaxx 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.
Yeast Pyrophosphatase	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.
RNase Block	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.
gRNA Binding 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.
5X gRNA Wash 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.
gRNA Elution Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : DEPC Treated Water

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 Promoter Forward 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.
Control Template	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.
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.
RNase Free DNase	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	Store in accordance with local regulations. Store in original container protected from direct sunlight in a

Section 7. Handling and storage

100 mM rATP

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

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

100 mM rGTP

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.

100 mM rUTP

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.

100 mM rCTP

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 RNAMaxx 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

Section 7. Handling and storage

Yeast Pyrophosphatase	<p>incompatible materials before handling or use. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p>
RNase Block	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p>
gRNA Binding Buffer	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p>
5X gRNA Wash Buffer	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p>
gRNA Elution Buffer	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p>

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
RNase Free DNase Glycerol	Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m ³ 8 hours.
T7 RNA Polymerase Glycerol	Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m ³ 8 hours.
Yeast Pyrophosphatase Glycerol	Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m ³ 8 hours.
RNase Block Glycerol	Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m ³ 8 hours.

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

Individual protection measures

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

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

Skin protection

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

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

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

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

Section 9. Physical and chemical properties

Appearance

Physical state

<input checked="" type="checkbox"/>	DEPC Treated Water	Liquid.
<input type="checkbox"/>	T7 Promoter Forward Primer	Liquid.
<input type="checkbox"/>	Control Template	Liquid.
<input type="checkbox"/>	DTT	Liquid.
<input type="checkbox"/>	RNase Free DNase	Liquid.
<input type="checkbox"/>	T7 RNA Polymerase	Liquid.
<input type="checkbox"/>	100 mM rATP	Liquid.
<input type="checkbox"/>	100 mM rGTP	Liquid.
<input type="checkbox"/>	100 mM rUTP	Liquid.
<input type="checkbox"/>	100 mM rCTP	Liquid.
<input type="checkbox"/>	5X RNAMaxx Transcription Buffer	Liquid.
<input type="checkbox"/>	Yeast Pyrophosphatase	Liquid.
<input type="checkbox"/>	RNase Block	Liquid.
<input type="checkbox"/>	gRNA Binding Buffer	Liquid.
<input type="checkbox"/>	5X gRNA Wash Buffer	Liquid.
<input type="checkbox"/>	gRNA Elution Buffer	Liquid.

Colour

<input checked="" type="checkbox"/>	DEPC Treated Water	Not available.
<input type="checkbox"/>	T7 Promoter Forward Primer	Not available.
<input type="checkbox"/>	Control Template	Not available.
<input type="checkbox"/>	DTT	Not available.
<input type="checkbox"/>	RNase Free DNase	Not available.
<input type="checkbox"/>	T7 RNA Polymerase	Not available.
<input type="checkbox"/>	100 mM rATP	Not available.
<input type="checkbox"/>	100 mM rGTP	Not available.
<input type="checkbox"/>	100 mM rUTP	Not available.
<input type="checkbox"/>	100 mM rCTP	Not available.
<input type="checkbox"/>	5X RNAMaxx Transcription Buffer	Not available.
<input type="checkbox"/>	Yeast Pyrophosphatase	Not available.
<input type="checkbox"/>	RNase Block	Not available.
<input type="checkbox"/>	gRNA Binding Buffer	Not available.
<input type="checkbox"/>	5X gRNA Wash Buffer	Not available.
<input type="checkbox"/>	gRNA Elution Buffer	Not available.

Odour

<input checked="" type="checkbox"/>	DEPC Treated Water	Not available.
<input type="checkbox"/>	T7 Promoter Forward Primer	Not available.
<input type="checkbox"/>	Control Template	Not available.
<input type="checkbox"/>	DTT	Not available.
<input type="checkbox"/>	RNase Free DNase	Not available.
<input type="checkbox"/>	T7 RNA Polymerase	Not available.
<input type="checkbox"/>	100 mM rATP	Not available.
<input type="checkbox"/>	100 mM rGTP	Not available.
<input type="checkbox"/>	100 mM rUTP	Not available.
<input type="checkbox"/>	100 mM rCTP	Not available.
<input type="checkbox"/>	5X RNAMaxx Transcription Buffer	Not available.
<input type="checkbox"/>	Yeast Pyrophosphatase	Not available.
<input type="checkbox"/>	RNase Block	Not available.
<input type="checkbox"/>	gRNA Binding Buffer	Not available.
<input type="checkbox"/>	5X gRNA Wash Buffer	Not available.
<input type="checkbox"/>	gRNA Elution Buffer	Not available.

Odour threshold

<input checked="" type="checkbox"/>	DEPC Treated Water	Not available.
<input type="checkbox"/>	T7 Promoter Forward Primer	Not available.
<input type="checkbox"/>	Control Template	Not available.
<input type="checkbox"/>	DTT	Not available.
<input type="checkbox"/>	RNase Free DNase	Not available.
<input type="checkbox"/>	T7 RNA Polymerase	Not available.
<input type="checkbox"/>	100 mM rATP	Not available.
<input type="checkbox"/>	100 mM rGTP	Not available.
<input type="checkbox"/>	100 mM rUTP	Not available.

Section 9. Physical and chemical properties

		100 mM rCTP	Not available.
		5X RNAMaxx Transcription Buffer	Not available.
		Yeast Pyrophosphatase	Not available.
		RNase Block	Not available.
		gRNA Binding Buffer	Not available.
		5X gRNA Wash Buffer	Not available.
		gRNA Elution Buffer	Not available.
pH	:	DEPC Treated Water	Not available.
		T7 Promoter Forward Primer	7
		Control Template	7
		DTT	10
		RNase Free DNase	7.5
		T7 RNA Polymerase	7.7
		100 mM rATP	8
		100 mM rGTP	8
		100 mM rUTP	8
		100 mM rCTP	8
		5X RNAMaxx Transcription Buffer	10
		Yeast Pyrophosphatase	7.5
		RNase Block	7.6
		gRNA Binding Buffer	7
		5X gRNA Wash Buffer	6.5
		gRNA Elution Buffer	7.5
Melting point	:	DEPC Treated Water	0°C (32°F)
		T7 Promoter Forward Primer	0°C (32°F)
		Control Template	0°C (32°F)
		DTT	Not available.
		RNase Free DNase	Not available.
		T7 RNA Polymerase	Not available.
		100 mM rATP	0°C (32°F)
		100 mM rGTP	0°C (32°F)
		100 mM rUTP	0°C (32°F)
		100 mM rCTP	0°C (32°F)
		5X RNAMaxx Transcription Buffer	Not available.
		Yeast Pyrophosphatase	Not available.
		RNase Block	Not available.
		gRNA Binding Buffer	Not available.
		5X gRNA Wash Buffer	0°C (32°F)
		gRNA Elution Buffer	0°C (32°F)
Boiling point	:	DEPC Treated Water	100°C (212°F)
		T7 Promoter Forward Primer	100°C (212°F)
		Control Template	100°C (212°F)
		DTT	Not available.
		RNase Free DNase	Not available.
		T7 RNA Polymerase	Not available.
		100 mM rATP	100°C (212°F)
		100 mM rGTP	100°C (212°F)
		100 mM rUTP	100°C (212°F)
		100 mM rCTP	100°C (212°F)
		5X RNAMaxx Transcription Buffer	Not available.
		Yeast Pyrophosphatase	Not available.
		RNase Block	Not available.
		gRNA Binding Buffer	Not available.
		5X gRNA Wash Buffer	100°C (212°F)
		gRNA Elution Buffer	100°C (212°F)

Section 9. Physical and chemical properties

Flash point	:	☒EPC Treated Water	Not available.
		T7 Promoter Forward Primer	Not available.
		Control Template	Not available.
		DTT	Not available.
		RNase Free DNase	Not available.
		T7 RNA Polymerase	Not available.
		100 mM rATP	Not available.
		100 mM rGTP	Not available.
		100 mM rUTP	Not available.
		100 mM rCTP	Not available.
		5X RNAMaxx Transcription Buffer	Not available.
		Yeast Pyrophosphatase	Not available.
		RNase Block	Not available.
		gRNA Binding Buffer	Not available.
		5X gRNA Wash Buffer	Not available.
		gRNA Elution Buffer	Not available.
Evaporation rate	:	☒EPC Treated Water	Not available.
		T7 Promoter Forward Primer	Not available.
		Control Template	Not available.
		DTT	Not available.
		RNase Free DNase	Not available.
		T7 RNA Polymerase	Not available.
		100 mM rATP	Not available.
		100 mM rGTP	Not available.
		100 mM rUTP	Not available.
		100 mM rCTP	Not available.
		5X RNAMaxx Transcription Buffer	Not available.
		Yeast Pyrophosphatase	Not available.
		RNase Block	Not available.
		gRNA Binding Buffer	Not available.
		5X gRNA Wash Buffer	Not available.
		gRNA Elution Buffer	Not available.
Flammability (solid, gas)	:	☒EPC Treated Water	Not applicable.
		T7 Promoter Forward Primer	Not applicable.
		Control Template	Not applicable.
		DTT	Not applicable.
		RNase Free DNase	Not applicable.
		T7 RNA Polymerase	Not applicable.
		100 mM rATP	Not applicable.
		100 mM rGTP	Not applicable.
		100 mM rUTP	Not applicable.
		100 mM rCTP	Not applicable.
		5X RNAMaxx Transcription Buffer	Not applicable.
		Yeast Pyrophosphatase	Not applicable.
		RNase Block	Not applicable.
		gRNA Binding Buffer	Not applicable.
		5X gRNA Wash Buffer	Not applicable.
		gRNA Elution Buffer	Not applicable.
Lower and upper explosive (flammable) limits	:	☒EPC Treated Water	Not available.
		T7 Promoter Forward Primer	Not available.
		Control Template	Not available.
		DTT	Not available.
		RNase Free DNase	Not available.
		T7 RNA Polymerase	Not available.
		100 mM rATP	Not available.
		100 mM rGTP	Not available.
		100 mM rUTP	Not available.
		100 mM rCTP	Not available.
		5X RNAMaxx Transcription	Not available.

Section 9. Physical and chemical properties

	Buffer	
	Yeast Pyrophosphatase	Not available.
	RNase Block	Not available.
	gRNA Binding Buffer	Not available.
	5X gRNA Wash Buffer	Not available.
	gRNA Elution Buffer	Not available.
Vapour pressure	: DEPC Treated Water	Not available.
	T7 Promoter Forward Primer	Not available.
	Control Template	Not available.
	DTT	Not available.
	RNase Free DNase	Not available.
	T7 RNA Polymerase	Not available.
	100 mM rATP	Not available.
	100 mM rGTP	Not available.
	100 mM rUTP	Not available.
	100 mM rCTP	Not available.
	5X RNAMaxx Transcription Buffer	Not available.
	Yeast Pyrophosphatase	Not available.
	RNase Block	Not available.
	gRNA Binding Buffer	Not available.
	5X gRNA Wash Buffer	Not available.
	gRNA Elution Buffer	Not available.
Vapour density	: DEPC Treated Water	Not available.
	T7 Promoter Forward Primer	Not available.
	Control Template	Not available.
	DTT	Not available.
	RNase Free DNase	Not available.
	T7 RNA Polymerase	Not available.
	100 mM rATP	Not available.
	100 mM rGTP	Not available.
	100 mM rUTP	Not available.
	100 mM rCTP	Not available.
	5X RNAMaxx Transcription Buffer	Not available.
	Yeast Pyrophosphatase	Not available.
	RNase Block	Not available.
	gRNA Binding Buffer	Not available.
	5X gRNA Wash Buffer	Not available.
	gRNA Elution Buffer	Not available.
Relative density	: DEPC Treated Water	Not available.
	T7 Promoter Forward Primer	Not available.
	Control Template	Not available.
	DTT	Not available.
	RNase Free DNase	Not available.
	T7 RNA Polymerase	Not available.
	100 mM rATP	Not available.
	100 mM rGTP	Not available.
	100 mM rUTP	Not available.
	100 mM rCTP	Not available.
	5X RNAMaxx Transcription Buffer	Not available.
	Yeast Pyrophosphatase	Not available.
	RNase Block	Not available.
	gRNA Binding Buffer	Not available.
	5X gRNA Wash Buffer	Not available.
	gRNA Elution Buffer	Not available.

Section 9. Physical and chemical properties

Solubility	:	DEPC Treated Water	Easily soluble in the following materials: cold water and hot water.
		T7 Promoter Forward Primer	Easily soluble in the following materials: cold water and hot water.
		Control Template	Easily soluble in the following materials: cold water and hot water.
		DTT	Easily soluble in the following materials: cold water and hot water.
		RNase Free DNase	Soluble in the following materials: cold water and hot water.
		T7 RNA Polymerase	Soluble in the following materials: cold water and hot water.
		100 mM rATP	Easily soluble in the following materials: cold water and hot water.
		100 mM rGTP	Easily soluble in the following materials: cold water and hot water.
		100 mM rUTP	Easily soluble in the following materials: cold water and hot water.
		100 mM rCTP	Easily soluble in the following materials: cold water and hot water.
		5X RNAMaxx Transcription Buffer	Easily soluble in the following materials: cold water and hot water.
		Yeast Pyrophosphatase	Soluble in the following materials: cold water and hot water.
		RNase Block	Soluble in the following materials: cold water and hot water.
		gRNA Binding Buffer	Soluble in the following materials: cold water and hot water.
		5X gRNA Wash Buffer	Easily soluble in the following materials: cold water and hot water.
		gRNA Elution Buffer	Easily soluble in the following materials: cold water and hot water.
	Partition coefficient: n-octanol/water	:	DEPC Treated Water
		T7 Promoter Forward Primer	Not available.
		Control Template	Not available.
		DTT	Not available.
		RNase Free DNase	Not available.
		T7 RNA Polymerase	Not available.
		100 mM rATP	Not available.
		100 mM rGTP	Not available.
		100 mM rUTP	Not available.
		100 mM rCTP	Not available.
		5X RNAMaxx Transcription Buffer	Not available.
		Yeast Pyrophosphatase	Not available.
		RNase Block	Not available.
		gRNA Binding Buffer	Not available.
		5X gRNA Wash Buffer	Not available.
		gRNA Elution Buffer	Not available.
Auto-ignition temperature		:	DEPC Treated Water
		T7 Promoter Forward Primer	Not available.
		Control Template	Not available.
		DTT	Not available.
		RNase Free DNase	Not available.
		T7 RNA Polymerase	Not available.
		100 mM rATP	Not available.
		100 mM rGTP	Not available.
		100 mM rUTP	Not available.
		100 mM rCTP	Not available.
		5X RNAMaxx Transcription Buffer	Not available.
		Yeast Pyrophosphatase	Not available.

Section 9. Physical and chemical properties

	RNase Block	Not available.
	gRNA Binding Buffer	Not available.
	5X gRNA Wash Buffer	Not available.
Decomposition temperature	<input checked="" type="checkbox"/> RNA Elution Buffer	Not available.
	<input checked="" type="checkbox"/> DEPC Treated Water	Not available.
	T7 Promoter Forward Primer	Not available.
	Control Template	Not available.
	DTT	Not available.
	RNase Free DNase	Not available.
	T7 RNA Polymerase	Not available.
	100 mM rATP	Not available.
	100 mM rGTP	Not available.
	100 mM rUTP	Not available.
	100 mM rCTP	Not available.
	5X RNAMaxx Transcription Buffer	Not available.
	Yeast Pyrophosphatase	Not available.
	RNase Block	Not available.
	gRNA Binding Buffer	Not available.
	5X gRNA Wash Buffer	Not available.
	gRNA Elution Buffer	Not available.
Viscosity	<input checked="" type="checkbox"/> DEPC Treated Water	Not available.
	T7 Promoter Forward Primer	Not available.
	Control Template	Not available.
	DTT	Not available.
	RNase Free DNase	Not available.
	T7 RNA Polymerase	Not available.
	100 mM rATP	Not available.
	100 mM rGTP	Not available.
	100 mM rUTP	Not available.
	100 mM rCTP	Not available.
	5X RNAMaxx Transcription Buffer	Not available.
	Yeast Pyrophosphatase	Not available.
	RNase Block	Not available.
	gRNA Binding Buffer	Not available.
	5X gRNA Wash Buffer	Not available.
	gRNA Elution Buffer	Not available.

Section 10. Stability and reactivity

Reactivity	<input checked="" type="checkbox"/> DEPC Treated Water	No specific test data related to reactivity available for this product or its ingredients.
	T7 Promoter Forward Primer	No specific test data related to reactivity available for this product or its ingredients.
	Control Template	No specific test data related to reactivity available for this product or its ingredients.
	DTT	No specific test data related to reactivity available for this product or its ingredients.
	RNase Free DNase	No specific test data related to reactivity available for this product or its ingredients.
	T7 RNA Polymerase	No specific test data related to reactivity available for this product or its ingredients.
	100 mM rATP	No specific test data related to reactivity available for this product or its ingredients.
	100 mM rGTP	No specific test data related to reactivity available for this product or its ingredients.
	100 mM rUTP	No specific test data related to reactivity available for this product or its ingredients.
	100 mM rCTP	No specific test data related to reactivity available for this product or its ingredients.
	5X RNAMaxx Transcription Buffer	No specific test data related to reactivity available for this product or its ingredients.
	Yeast Pyrophosphatase	No specific test data related to reactivity available for

Section 10. Stability and reactivity

RNase Block	this product or its ingredients.
gRNA Binding Buffer	No specific test data related to reactivity available for this product or its ingredients.
5X gRNA Wash Buffer	No specific test data related to reactivity available for this product or its ingredients.
gRNA Elution Buffer	No specific test data related to reactivity available for this product or its ingredients.

Chemical stability

: <input checked="" type="checkbox"/> DEPC Treated Water	The product is stable.
T7 Promoter Forward Primer	The product is stable.
Control Template	The product is stable.
DTT	The product is stable.
RNase Free DNase	The product is stable.
T7 RNA Polymerase	The product is stable.
100 mM rATP	The product is stable.
100 mM rGTP	The product is stable.
100 mM rUTP	The product is stable.
100 mM rCTP	The product is stable.
5X RNAMaxx Transcription Buffer	The product is stable.
Yeast Pyrophosphatase	The product is stable.
RNase Block	The product is stable.
gRNA Binding Buffer	The product is stable.
5X gRNA Wash Buffer	The product is stable.
gRNA Elution Buffer	The product is stable.

Possibility of hazardous reactions

: <input checked="" type="checkbox"/> DEPC Treated Water	Under normal conditions of storage and use, hazardous reactions will not occur.
T7 Promoter Forward Primer	Under normal conditions of storage and use, hazardous reactions will not occur.
Control Template	Under normal conditions of storage and use, hazardous reactions will not occur.
DTT	Under normal conditions of storage and use, hazardous reactions will not occur.
RNase Free DNase	Under normal conditions of storage and use, hazardous reactions will not occur.
T7 RNA Polymerase	Under normal conditions of storage and use, hazardous reactions will not occur.
100 mM rATP	Under normal conditions of storage and use, hazardous reactions will not occur.
100 mM rGTP	Under normal conditions of storage and use, hazardous reactions will not occur.
100 mM rUTP	Under normal conditions of storage and use, hazardous reactions will not occur.
100 mM rCTP	Under normal conditions of storage and use, hazardous reactions will not occur.
5X RNAMaxx Transcription Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
Yeast Pyrophosphatase	Under normal conditions of storage and use, hazardous reactions will not occur.
RNase Block	Under normal conditions of storage and use, hazardous reactions will not occur.
gRNA Binding Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
5X gRNA Wash Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
gRNA Elution Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.

Section 10. Stability and reactivity

Conditions to avoid	<ul style="list-style-type: none"> : <input checked="" type="checkbox"/> EPC Treated Water T7 Promoter Forward Primer Control Template DTT RNase Free DNase T7 RNA Polymerase 100 mM rATP 100 mM rGTP 100 mM rUTP 100 mM rCTP 5X RNAMaxx Transcription Buffer Yeast Pyrophosphatase RNase Block gRNA Binding Buffer 5X gRNA Wash Buffer gRNA Elution Buffer 	<ul style="list-style-type: none"> No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
Incompatible materials	<ul style="list-style-type: none"> : <input checked="" type="checkbox"/> EPC Treated Water T7 Promoter Forward Primer Control Template DTT RNase Free DNase T7 RNA Polymerase 100 mM rATP 100 mM rGTP 100 mM rUTP 100 mM rCTP 5X RNAMaxx Transcription Buffer Yeast Pyrophosphatase RNase Block gRNA Binding Buffer 5X gRNA Wash Buffer gRNA Elution Buffer 	<ul style="list-style-type: none"> May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
Hazardous decomposition products	<ul style="list-style-type: none"> : <input checked="" type="checkbox"/> EPC Treated Water T7 Promoter Forward Primer Control Template DTT RNase Free DNase T7 RNA Polymerase 100 mM rATP 100 mM rGTP 100 mM rUTP 	<ul style="list-style-type: none"> Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 10. Stability and reactivity

100 mM rCTP	produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.
5X RNAMaxx Transcription Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Yeast Pyrophosphatase	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
RNase Block	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
gRNA Binding Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
5X gRNA Wash Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
gRNA Elution Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
RNase Free DNase Glycerol	LD50 Oral	Rat	12600 mg/kg	-
T7 RNA Polymerase Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Yeast Pyrophosphatase Glycerol	LD50 Oral	Rat	12600 mg/kg	-
RNase Block Glycerol	LD50 Oral	Rat	12600 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
RNase Free DNase Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-		24 hours 500 milligrams
T7 RNA Polymerase Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-		24 hours 500 milligrams
Yeast Pyrophosphatase Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-		24 hours 500 milligrams
RNase Block					

Section 11. Toxicological information

Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Sensitisation

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
DTT (R*,R*)-1,4-Dimercaptobutane-2,3-diol	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	: <input checked="" type="checkbox"/> EPC Treated Water	Not available.
	T7 Promoter Forward Primer	Not available.
	Control Template	Not available.
	DTT	Routes of entry anticipated: Oral, Dermal, Inhalation.
	RNase Free DNase	Routes of entry anticipated: Oral, Dermal, Inhalation.
	T7 RNA Polymerase	Routes of entry anticipated: Oral, Dermal, Inhalation.
	100 mM rATP	Not available.
	100 mM rGTP	Not available.
	100 mM rUTP	Not available.
	100 mM rCTP	Not available.
	5X RNAMaxx Transcription Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation.
	Yeast Pyrophosphatase	Routes of entry anticipated: Oral, Dermal, Inhalation.
	RNase Block	Routes of entry anticipated: Oral, Dermal, Inhalation.
	gRNA Binding Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation.
	5X gRNA Wash Buffer	Not available.
	gRNA Elution Buffer	Not available.

Potential acute health effects

Eye contact	: <input checked="" type="checkbox"/> EPC Treated Water	No known significant effects or critical hazards.
	T7 Promoter Forward Primer	No known significant effects or critical hazards.
	Control Template	No known significant effects or critical hazards.
	DTT	Causes serious eye irritation.
	RNase Free DNase	No known significant effects or critical hazards.
	T7 RNA Polymerase	No known significant effects or critical hazards.
	100 mM rATP	No known significant effects or critical hazards.
	100 mM rGTP	No known significant effects or critical hazards.
	100 mM rUTP	No known significant effects or critical hazards.
	100 mM rCTP	No known significant effects or critical hazards.

Section 11. Toxicological information

	5X RNAMaxx Transcription Buffer	No known significant effects or critical hazards.
	Yeast Pyrophosphatase	No known significant effects or critical hazards.
	RNase Block	No known significant effects or critical hazards.
	gRNA Binding Buffer	No known significant effects or critical hazards.
	5X gRNA Wash Buffer	No known significant effects or critical hazards.
	gRNA Elution Buffer	No known significant effects or critical hazards.
Inhalation	: <input checked="" type="checkbox"/> EPC Treated Water	No known significant effects or critical hazards.
	T7 Promoter Forward Primer	No known significant effects or critical hazards.
	Control Template	No known significant effects or critical hazards.
	DTT	No known significant effects or critical hazards.
	RNase Free DNase	No known significant effects or critical hazards.
	T7 RNA Polymerase	No known significant effects or critical hazards.
	100 mM rATP	No known significant effects or critical hazards.
	100 mM rGTP	No known significant effects or critical hazards.
	100 mM rUTP	No known significant effects or critical hazards.
	100 mM rCTP	No known significant effects or critical hazards.
	5X RNAMaxx Transcription Buffer	No known significant effects or critical hazards.
	Yeast Pyrophosphatase	No known significant effects or critical hazards.
	RNase Block	No known significant effects or critical hazards.
	gRNA Binding Buffer	Harmful if inhaled.
	5X gRNA Wash Buffer	No known significant effects or critical hazards.
	gRNA Elution Buffer	No known significant effects or critical hazards.
Skin contact	: <input checked="" type="checkbox"/> EPC Treated Water	No known significant effects or critical hazards.
	T7 Promoter Forward Primer	No known significant effects or critical hazards.
	Control Template	No known significant effects or critical hazards.
	DTT	Causes skin irritation.
	RNase Free DNase	No known significant effects or critical hazards.
	T7 RNA Polymerase	No known significant effects or critical hazards.
	100 mM rATP	No known significant effects or critical hazards.
	100 mM rGTP	No known significant effects or critical hazards.
	100 mM rUTP	No known significant effects or critical hazards.
	100 mM rCTP	No known significant effects or critical hazards.
	5X RNAMaxx Transcription Buffer	No known significant effects or critical hazards.
	Yeast Pyrophosphatase	No known significant effects or critical hazards.
	RNase Block	No known significant effects or critical hazards.
	gRNA Binding Buffer	No known significant effects or critical hazards.
	5X gRNA Wash Buffer	No known significant effects or critical hazards.
	gRNA Elution Buffer	No known significant effects or critical hazards.
Ingestion	: <input checked="" type="checkbox"/> EPC Treated Water	No known significant effects or critical hazards.
	T7 Promoter Forward Primer	No known significant effects or critical hazards.
	Control Template	No known significant effects or critical hazards.
	DTT	No known significant effects or critical hazards.
	RNase Free DNase	No known significant effects or critical hazards.
	T7 RNA Polymerase	No known significant effects or critical hazards.
	100 mM rATP	No known significant effects or critical hazards.
	100 mM rGTP	No known significant effects or critical hazards.
	100 mM rUTP	No known significant effects or critical hazards.
	100 mM rCTP	No known significant effects or critical hazards.
	5X RNAMaxx Transcription Buffer	No known significant effects or critical hazards.
	Yeast Pyrophosphatase	No known significant effects or critical hazards.
	RNase Block	No known significant effects or critical hazards.
	gRNA Binding Buffer	Harmful if swallowed.
	5X gRNA Wash Buffer	No known significant effects or critical hazards.
	gRNA Elution Buffer	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Section 11. Toxicological information

Eye contact	:	DEPC Treated Water	No specific data.	
		T7 Promoter Forward Primer	No specific data.	
		Control Template	No specific data.	
		DTT	Adverse symptoms may include the following: pain or irritation watering redness	
			RNase Free DNase	No specific data.
			T7 RNA Polymerase	No specific data.
			100 mM rATP	No specific data.
			100 mM rGTP	No specific data.
			100 mM rUTP	No specific data.
			100 mM rCTP	No specific data.
			5X RNAMaxx Transcription Buffer	No specific data.
			Yeast Pyrophosphatase	No specific data.
			RNase Block	No specific data.
			gRNA Binding Buffer	No specific data.
			5X gRNA Wash Buffer	No specific data.
			gRNA Elution Buffer	No specific data.
Inhalation	:	DEPC Treated Water	No specific data.	
		T7 Promoter Forward Primer	No specific data.	
		Control Template	No specific data.	
		DTT	No specific data.	
		RNase Free DNase	No specific data.	
		T7 RNA Polymerase	No specific data.	
		100 mM rATP	No specific data.	
		100 mM rGTP	No specific data.	
		100 mM rUTP	No specific data.	
		100 mM rCTP	No specific data.	
		5X RNAMaxx Transcription Buffer	No specific data.	
		Yeast Pyrophosphatase	No specific data.	
		RNase Block	No specific data.	
		gRNA Binding Buffer	No specific data.	
		5X gRNA Wash Buffer	No specific data.	
		gRNA Elution Buffer	No specific data.	
Skin contact	:	DEPC Treated Water	No specific data.	
		T7 Promoter Forward Primer	No specific data.	
		Control Template	No specific data.	
		DTT	Adverse symptoms may include the following: irritation redness	
			RNase Free DNase	No specific data.
			T7 RNA Polymerase	No specific data.
			100 mM rATP	No specific data.
			100 mM rGTP	No specific data.
			100 mM rUTP	No specific data.
			100 mM rCTP	No specific data.
			5X RNAMaxx Transcription Buffer	No specific data.
			Yeast Pyrophosphatase	No specific data.
			RNase Block	No specific data.
			gRNA Binding Buffer	No specific data.
			5X gRNA Wash Buffer	No specific data.
			gRNA Elution Buffer	No specific data.

Section 11. Toxicological information

Ingestion	: <input checked="" type="checkbox"/> EPC Treated Water	No specific data.
	T7 Promoter Forward Primer	No specific data.
	Control Template	No specific data.
	DTT	No specific data.
	RNase Free DNase	No specific data.
	T7 RNA Polymerase	No specific data.
	100 mM rATP	No specific data.
	100 mM rGTP	No specific data.
	100 mM rUTP	No specific data.
	100 mM rCTP	No specific data.
	5X RNAMaxx Transcription Buffer	No specific data.
	Yeast Pyrophosphatase	No specific data.
	RNase Block	No specific data.
	gRNA Binding Buffer	No specific data.
	5X gRNA Wash Buffer	No specific data.
	gRNA Elution Buffer	No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General	: <input checked="" type="checkbox"/> EPC Treated Water	No known significant effects or critical hazards.
	T7 Promoter Forward Primer	No known significant effects or critical hazards.
	Control Template	No known significant effects or critical hazards.
	DTT	No known significant effects or critical hazards.
	RNase Free DNase	No known significant effects or critical hazards.
	T7 RNA Polymerase	No known significant effects or critical hazards.
	100 mM rATP	No known significant effects or critical hazards.
	100 mM rGTP	No known significant effects or critical hazards.
	100 mM rUTP	No known significant effects or critical hazards.
	100 mM rCTP	No known significant effects or critical hazards.
	5X RNAMaxx Transcription Buffer	No known significant effects or critical hazards.
	Yeast Pyrophosphatase	No known significant effects or critical hazards.
	RNase Block	No known significant effects or critical hazards.
	gRNA Binding Buffer	No known significant effects or critical hazards.
	5X gRNA Wash Buffer	No known significant effects or critical hazards.
	gRNA Elution Buffer	No known significant effects or critical hazards.

Carcinogenicity	: <input checked="" type="checkbox"/> EPC Treated Water	No known significant effects or critical hazards.
	T7 Promoter Forward Primer	No known significant effects or critical hazards.
	Control Template	No known significant effects or critical hazards.
	DTT	No known significant effects or critical hazards.
	RNase Free DNase	No known significant effects or critical hazards.
	T7 RNA Polymerase	No known significant effects or critical hazards.
	100 mM rATP	No known significant effects or critical hazards.
	100 mM rGTP	No known significant effects or critical hazards.
	100 mM rUTP	No known significant effects or critical hazards.
	100 mM rCTP	No known significant effects or critical hazards.
	5X RNAMaxx Transcription Buffer	No known significant effects or critical hazards.
	Yeast Pyrophosphatase	No known significant effects or critical hazards.

Section 11. Toxicological information

	RNase Block	No known significant effects or critical hazards.
	gRNA Binding Buffer	No known significant effects or critical hazards.
	5X gRNA Wash Buffer	No known significant effects or critical hazards.
	gRNA Elution Buffer	No known significant effects or critical hazards.
Mutagenicity	: <input checked="" type="checkbox"/> EPC Treated Water	No known significant effects or critical hazards.
	T7 Promoter Forward Primer	No known significant effects or critical hazards.
	Control Template	No known significant effects or critical hazards.
	DTT	No known significant effects or critical hazards.
	RNase Free DNase	No known significant effects or critical hazards.
	T7 RNA Polymerase	No known significant effects or critical hazards.
	100 mM rATP	No known significant effects or critical hazards.
	100 mM rGTP	No known significant effects or critical hazards.
	100 mM rUTP	No known significant effects or critical hazards.
	100 mM rCTP	No known significant effects or critical hazards.
	5X RNAMaxx Transcription Buffer	No known significant effects or critical hazards.
	Yeast Pyrophosphatase	No known significant effects or critical hazards.
	RNase Block	No known significant effects or critical hazards.
	gRNA Binding Buffer	No known significant effects or critical hazards.
	5X gRNA Wash Buffer	No known significant effects or critical hazards.
	gRNA Elution Buffer	No known significant effects or critical hazards.
Teratogenicity	: <input checked="" type="checkbox"/> EPC Treated Water	No known significant effects or critical hazards.
	T7 Promoter Forward Primer	No known significant effects or critical hazards.
	Control Template	No known significant effects or critical hazards.
	DTT	No known significant effects or critical hazards.
	RNase Free DNase	No known significant effects or critical hazards.
	T7 RNA Polymerase	No known significant effects or critical hazards.
	100 mM rATP	No known significant effects or critical hazards.
	100 mM rGTP	No known significant effects or critical hazards.
	100 mM rUTP	No known significant effects or critical hazards.
	100 mM rCTP	No known significant effects or critical hazards.
	5X RNAMaxx Transcription Buffer	No known significant effects or critical hazards.
	Yeast Pyrophosphatase	No known significant effects or critical hazards.
	RNase Block	No known significant effects or critical hazards.
	gRNA Binding Buffer	No known significant effects or critical hazards.
	5X gRNA Wash Buffer	No known significant effects or critical hazards.
	gRNA Elution Buffer	No known significant effects or critical hazards.
Developmental effects	: <input checked="" type="checkbox"/> EPC Treated Water	No known significant effects or critical hazards.
	T7 Promoter Forward Primer	No known significant effects or critical hazards.
	Control Template	No known significant effects or critical hazards.
	DTT	No known significant effects or critical hazards.
	RNase Free DNase	No known significant effects or critical hazards.
	T7 RNA Polymerase	No known significant effects or critical hazards.
	100 mM rATP	No known significant effects or critical hazards.
	100 mM rGTP	No known significant effects or critical hazards.
	100 mM rUTP	No known significant effects or critical hazards.
	100 mM rCTP	No known significant effects or critical hazards.
	5X RNAMaxx Transcription Buffer	No known significant effects or critical hazards.
	Yeast Pyrophosphatase	No known significant effects or critical hazards.
	RNase Block	No known significant effects or critical hazards.
	gRNA Binding Buffer	No known significant effects or critical hazards.
	5X gRNA Wash Buffer	No known significant effects or critical hazards.
	gRNA Elution Buffer	No known significant effects or critical hazards.

Section 11. Toxicological information

Fertility effects	: DEPC Treated Water T7 Promoter Forward Primer Control Template DTT RNase Free DNase T7 RNA Polymerase 100 mM rATP 100 mM rGTP 100 mM rUTP 100 mM rCTP 5X RNAMaxx Transcription Buffer Yeast Pyrophosphatase RNase Block gRNA Binding Buffer 5X gRNA Wash Buffer gRNA Elution Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
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Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
DTT Oral	4310.3 mg/kg
gRNA Binding Buffer Oral Dermal Inhalation (dusts and mists)	1063.8 mg/kg 2340.4 mg/kg 3.191 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
DTT (R*,R*)-1, 4-Dimercaptobutane-2,3-diol	Acute LC50 27000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
RNase Free DNase Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
T7 RNA Polymerase Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Yeast Pyrophosphatase Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
RNase Block Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

Persistence and degradability

Section 12. Ecological information

Product/ingredient name	Test	Result	Dose	Inoculum
RNase Free DNase Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
T7 RNA Polymerase Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
Yeast Pyrophosphatase Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
RNase Block Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
DEPC Treated Water Water	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
DEPC Treated Water Water	-1.38	-	low
RNase Free DNase Glycerol	-1.76	-	low
T7 RNA Polymerase Glycerol	-1.76	-	low
Yeast Pyrophosphatase Glycerol	-1.76	-	low
RNase Block Glycerol	-1.76	-	low

Mobility in soil

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

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

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

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

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

Section 15. Regulatory information

Standard Uniform Schedule of Medicine and Poisons

Not regulated.

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

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.
Republic of Korea : Not determined.

Section 15. Regulatory information

- Taiwan** : All components are listed or exempted.
- Thailand** : Not determined.
- Turkey** : Not determined.
- United States** : Not determined.
- Viet Nam** : Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 12/01/2018

Date of previous issue : 02/10/2015.

Version : 3

Key to abbreviations

- ADG = Australian Dangerous Goods
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- NOHSC = National Occupational Health and Safety Commission
- SUSMP = Standard Uniform Schedule of Medicine and Poisons
- UN = United Nations

Procedure used to derive the classification

Classification	Justification
DTT Skin Irrit. 2, H315 Eye Irrit. 2A, H319	Calculation method Calculation method
gRNA Binding Buffer Acute Tox. 4, H302 Acute Tox. 4, H332 Aquatic Chronic 3, H412	Calculation method Calculation method Calculation method

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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