

SAFETY DATA SHEET

Prime-It II Random Primer Labeling Kit, Part Number 300385

Section 1. Identification

1.1 Product identifier

Product name	: Prime-It II Random Primer Labeling Kit, Part Number 300385		
Part No. (Chemical Kit)	: 300385		
Part No.	<input checked="" type="checkbox"/>	Control DNA	300385-51
		Random 9-mer Primers	300385-52
		Prime-It II 5X dCTP Buffer	300385-53
		Prime-It II 5X dATP Buffer	300385-54
		Exo (-) Klenow	300385-55
		Stop Mix	300385-56
Validation date	: 12/31/2017		

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

Material uses	: Analytical reagent.		
	<input checked="" type="checkbox"/>	Control DNA	100 µl (25 ng/µl 10 µl)
		Random 9-mer Primers	350 µl
		Prime-It II 5X dCTP Buffer	350 µl
		Prime-It II 5X dATP Buffer	350 µl
		Exo (-) Klenow	350 µl (5 U/µl 175 U)
		Stop Mix	100 µl

1.3 Details of the supplier of the safety data sheet

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

In case of emergency	: CHEMTREC®: 1-800-424-9300
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Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status	: <input checked="" type="checkbox"/> Control DNA	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	Random 9-mer Primers	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	Prime-It II 5X dCTP Buffer	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Section 2. Hazards identification

Prime-It II 5X dATP Buffer	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Exo (-) Klenow	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Stop Mix	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

Exo (-) Klenow

H320 EYE IRRITATION - Category 2B

Stop Mix

H319 EYE IRRITATION - Category 2A

Ingredients of unknown toxicity

Prime-It II 5X dCTP 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%
Prime-It II 5X dATP 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%
Exo (-) Klenow	Percentage of the mixture consisting of ingredient (s) of unknown inhalation toxicity: 30 - 60%
Stop Mix	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% Percentage of the mixture consisting of ingredient (s) of unknown oral toxicity: 10 - 30%


2.2 GHS label elements

Hazard pictograms


:  Stop Mix



Signal word

:  Control DNA
Random 9-mer Primers
Prime-It II 5X dCTP Buffer
Prime-It II 5X dATP Buffer
Exo (-) Klenow
Stop Mix
No signal word.
No signal word.
No signal word.
No signal word.
Warning
Warning

Hazard statements

:  Control DNA
Random 9-mer Primers
Prime-It II 5X dCTP Buffer
Prime-It II 5X dATP Buffer
Exo (-) Klenow
Stop Mix
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
H320 - Causes eye irritation.
H319 - Causes serious eye irritation.

Precautionary statements

Section 2. Hazards identification

Prevention	: <input checked="" type="checkbox"/> Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	Not applicable. Not applicable. Not applicable. Not applicable. P264 - Wash hands thoroughly after handling. P280 - Wear eye or face protection. P264 - Wash hands thoroughly after handling.
Response	: <input checked="" type="checkbox"/> Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	Not applicable. Not applicable. Not applicable. Not applicable. 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. 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.
Storage	: <input checked="" type="checkbox"/> Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Disposal	: <input checked="" type="checkbox"/> Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Supplemental label elements	: <input checked="" type="checkbox"/> Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	None known. None known. None known. None known. None known. None known.
<u>2.3 Other hazards</u>		
Hazards not otherwise classified	: <input checked="" type="checkbox"/> Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	None known. None known. None known. None known. None known. None known.

Section 3. Composition/information on ingredients

Substance/mixture	:	Control DNA	Mixture
		Random 9-mer Primers	Mixture
		Prime-It II 5X dCTP Buffer	Mixture
		Prime-It II 5X dATP Buffer	Mixture
		Exo (-) Klenow	Mixture
		Stop Mix	Mixture

Ingredient name	%	CAS number
Prime-It II 5X dCTP Buffer 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	≤3	1185-53-1
Prime-It II 5X dATP Buffer 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	≤3	1185-53-1
Exo (-) Klenow Glycerol	≥50 - ≤75	56-81-5
Stop Mix Edetic acid	≥10 - ≤25	60-00-4

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

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


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

Section 4. First aid measures

4.1 Description of necessary first aid measures

Eye contact	:	Control DNA	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.
		Random 9-mer Primers	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.
		Prime-It II 5X dCTP 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.
		Prime-It II 5X dATP 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.
		Exo (-) Klenow	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
		Stop Mix	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Section 4. First aid measures

Inhalation	:  Control DNA	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Random 9-mer Primers	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Prime-It II 5X dCTP 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.
	Prime-It II 5X dATP 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.
	Exo (-) Klenow	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.
	Stop Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	:  Control DNA	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Random 9-mer Primers	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Prime-It II 5X dCTP Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Prime-It II 5X dATP Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get

Section 4. First aid measures

	Exo (-) Klenow	medical attention if symptoms occur. 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.
	Stop Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: Control DNA	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.
	Random 9-mer Primers	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.
	Prime-It II 5X dCTP 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.
	Prime-It II 5X dATP 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.
	Exo (-) Klenow	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.
	Stop Mix	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is

Section 4. First aid measures

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.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: <input checked="" type="checkbox"/> Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes eye irritation. Causes serious eye irritation.
Inhalation	: <input checked="" type="checkbox"/> Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: <input checked="" type="checkbox"/> Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: <input checked="" type="checkbox"/> Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: <input checked="" type="checkbox"/> Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: irritation watering redness Adverse symptoms may include the following: pain or irritation watering redness
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Section 4. First aid measures

Inhalation	: Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
Skin contact	: Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
Ingestion	: Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.

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

Notes to physician	: Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. 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. 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. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. 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.
Specific treatments	: Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment.
Protection of first-aiders	: Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow	No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. It may be dangerous to

Section 4. First aid measures

Stop Mix

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

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

: Control DNA
Random 9-mer Primers
Prime-It II 5X dCTP Buffer
Prime-It II 5X dATP Buffer
Exo (-) Klenow
Stop Mix

Use an extinguishing agent suitable for the surrounding fire.
Use an extinguishing agent suitable for the surrounding fire.
Use an extinguishing agent suitable for the surrounding fire.
Use an extinguishing agent suitable for the surrounding fire.
Use an extinguishing agent suitable for the surrounding fire.
Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media

: Control DNA
Random 9-mer Primers
Prime-It II 5X dCTP Buffer
Prime-It II 5X dATP Buffer
Exo (-) Klenow
Stop Mix

None known.
None known.
None known.
None known.
None known.
None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical

: Control DNA
Random 9-mer Primers
Prime-It II 5X dCTP Buffer
Prime-It II 5X dATP Buffer
Exo (-) Klenow
Stop Mix

In a fire or if heated, a pressure increase will occur and the container may burst.
In a fire or if heated, a pressure increase will occur and the container may burst.
In a fire or if heated, a pressure increase will occur and the container may burst.
In a fire or if heated, a pressure increase will occur and the container may burst.
In a fire or if heated, a pressure increase will occur and the container may burst.
In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products

: Control DNA
Random 9-mer Primers
Prime-It II 5X dCTP Buffer

Prime-It II 5X dATP Buffer


No specific data.
No specific data.
Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
halogenated compounds
Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

Section 5. Fire-fighting measures


Exo (-) Klenow	halogenated compounds Decomposition products may include the following materials: carbon dioxide carbon monoxide
Stop Mix	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters

:  Control DNA	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.
Random 9-mer Primers	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.
Prime-It II 5X dCTP 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.
Prime-It II 5X dATP 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.
Exo (-) Klenow	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.
Stop Mix	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

:  Control DNA	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Random 9-mer Primers	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Prime-It II 5X dCTP Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Prime-It II 5X dATP Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Exo (-) Klenow	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Stop Mix	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus

Section 5. Fire-fighting measures

(SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

:  Control DNA

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

Random 9-mer Primers

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

Prime-It II 5X dCTP Buffer

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

Prime-It II 5X dATP Buffer

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

Exo (-) Klenow

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Stop Mix

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

:  Control DNA

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also


Random 9-mer Primers

Prime-It II 5X dCTP Buffer


Section 6. Accidental release measures

Prime-It II 5X dATP Buffer	the information in "For non-emergency personnel". If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Exo (-) Klenow	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Stop Mix	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

:  Control DNA	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Random 9-mer Primers	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Prime-It II 5X dCTP Buffer	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Prime-It II 5X dATP Buffer	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Exo (-) Klenow	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Stop Mix	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up


Methods for cleaning up :  Control DNA	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.
Random 9-mer Primers	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 6. Accidental release measures



Prime-It II 5X dCTP Buffer	disposal contractor. 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.
Prime-It II 5X dATP 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.
Exo (-) Klenow	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.
Stop Mix	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures	:  Control DNA	Put on appropriate personal protective equipment (see Section 8).
Random 9-mer Primers		Put on appropriate personal protective equipment (see Section 8).
Prime-It II 5X dCTP Buffer		Put on appropriate personal protective equipment (see Section 8).
Prime-It II 5X dATP Buffer		Put on appropriate personal protective equipment (see Section 8).
Exo (-) Klenow		Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Stop Mix		Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Section 7. Handling and storage

Advice on general occupational hygiene	:  Control DNA	<p>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.</p> <p>Random 9-mer Primers</p> <p>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.</p> <p>Prime-It II 5X dCTP Buffer</p> <p>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.</p> <p>Prime-It II 5X dATP Buffer</p> <p>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.</p> <p>Exo (-) Klenow</p> <p>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.</p> <p>Stop Mix</p> <p>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.</p>
7.2 Conditions for safe storage, including any incompatibilities	:  Control DNA	<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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p> <p>Random 9-mer Primers</p> <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</p>

Section 7. Handling and storage

Prime-It II 5X dCTP Buffer

and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

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

Prime-It II 5X dATP Buffer

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

Exo (-) Klenow

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

Stop Mix

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

[7.3 Specific end use\(s\)](#)

Section 7. Handling and storage

Recommendations	: <input checked="" type="checkbox"/> Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
Industrial sector specific solutions	: <input checked="" type="checkbox"/> Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Prime-It II 5X dCTP Buffer 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	None.
Prime-It II 5X dATP Buffer 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	None.
Exo (-) Klenow Glycerol	OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 10 mg/m ³ 8 hours. Form: Total dust OSHA PEL (United States, 6/2016). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust
Stop Mix Edetic acid	None.

8.2 Exposure controls

Appropriate engineering controls	: <input checked="" type="checkbox"/> 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: chemical splash goggles.

Section 8. Exposure controls/personal protection

Skin protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: Control DNA	Liquid.
	Random 9-mer Primers	Liquid.
	Prime-It II 5X dCTP Buffer	Liquid.
	Prime-It II 5X dATP Buffer	Liquid.
	Exo (-) Klenow	Liquid.
Color	: Control DNA	Liquid.
	Random 9-mer Primers	Liquid.
	Prime-It II 5X dCTP Buffer	Liquid.
	Prime-It II 5X dATP Buffer	Liquid.
	Exo (-) Klenow	Liquid.
Odor	: Control DNA	Liquid.
	Random 9-mer Primers	Liquid.
	Prime-It II 5X dCTP Buffer	Liquid.
	Prime-It II 5X dATP Buffer	Liquid.
	Exo (-) Klenow	Liquid.
Odor threshold	: Control DNA	Liquid.
	Random 9-mer Primers	Liquid.
	Prime-It II 5X dCTP Buffer	Liquid.
	Prime-It II 5X dATP Buffer	Liquid.
	Exo (-) Klenow	Liquid.
pH	: Control DNA	Liquid.
	Random 9-mer Primers	Liquid.
	Prime-It II 5X dCTP Buffer	Liquid.
	Prime-It II 5X dATP Buffer	Liquid.
	Exo (-) Klenow	Liquid.
	Stop Mix	Liquid.

Section 9. Physical and chemical properties

Melting point	: Control DNA	0°C (32°F)
	Random 9-mer Primers	0°C (32°F)
	Prime-It II 5X dCTP Buffer	0°C (32°F)
	Prime-It II 5X dATP Buffer	0°C (32°F)
	Exo (-) Klenow	Not available.
	Stop Mix	Not available.
Boiling point	: Control DNA	100°C (212°F)
	Random 9-mer Primers	100°C (212°F)
	Prime-It II 5X dCTP Buffer	100°C (212°F)
	Prime-It II 5X dATP Buffer	100°C (212°F)
	Exo (-) Klenow	Not available.
	Stop Mix	Not available.
Flash point	: Control DNA	Not available.
	Random 9-mer Primers	Not available.
	Prime-It II 5X dCTP Buffer	Not available.
	Prime-It II 5X dATP Buffer	Not available.
	Exo (-) Klenow	Not available.
	Stop Mix	Not available.
Evaporation rate	: Control DNA	Not available.
	Random 9-mer Primers	Not available.
	Prime-It II 5X dCTP Buffer	Not available.
	Prime-It II 5X dATP Buffer	Not available.
	Exo (-) Klenow	Not available.
	Stop Mix	Not available.
Flammability (solid, gas)	: Control DNA	Not applicable.
	Random 9-mer Primers	Not applicable.
	Prime-It II 5X dCTP Buffer	Not applicable.
	Prime-It II 5X dATP Buffer	Not applicable.
	Exo (-) Klenow	Not applicable.
	Stop Mix	Not applicable.
Lower and upper explosive (flammable) limits	: Control DNA	Not available.
	Random 9-mer Primers	Not available.
	Prime-It II 5X dCTP Buffer	Not available.
	Prime-It II 5X dATP Buffer	Not available.
	Exo (-) Klenow	Not available.
	Stop Mix	Not available.
Vapor pressure	: Control DNA	Not available.
	Random 9-mer Primers	Not available.
	Prime-It II 5X dCTP Buffer	Not available.
	Prime-It II 5X dATP Buffer	Not available.
	Exo (-) Klenow	Not available.
	Stop Mix	Not available.
Vapor density	: Control DNA	Not available.
	Random 9-mer Primers	Not available.
	Prime-It II 5X dCTP Buffer	Not available.
	Prime-It II 5X dATP Buffer	Not available.
	Exo (-) Klenow	Not available.
	Stop Mix	Not available.
Relative density	: Control DNA	Not available.
	Random 9-mer Primers	Not available.
	Prime-It II 5X dCTP Buffer	Not available.
	Prime-It II 5X dATP Buffer	Not available.
	Exo (-) Klenow	Not available.
	Stop Mix	Not available.

Section 9. Physical and chemical properties

Solubility	: Control DNA	Easily soluble in the following materials: cold water and hot water.
	Random 9-mer Primers	Easily soluble in the following materials: cold water and hot water.
	Prime-It II 5X dCTP Buffer	Easily soluble in the following materials: cold water and hot water.
	Prime-It II 5X dATP Buffer	Easily soluble in the following materials: cold water and hot water.
	Exo (-) Klenow	Soluble in the following materials: cold water and hot water.
	Stop Mix	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Control DNA	Not available.
	Random 9-mer Primers	Not available.
	Prime-It II 5X dCTP Buffer	Not available.
	Prime-It II 5X dATP Buffer	Not available.
	Exo (-) Klenow	Not available.
	Stop Mix	Not available.
Auto-ignition temperature	: Control DNA	Not available.
	Random 9-mer Primers	Not available.
	Prime-It II 5X dCTP Buffer	Not available.
	Prime-It II 5X dATP Buffer	Not available.
	Exo (-) Klenow	Not available.
	Stop Mix	Not available.
Decomposition temperature	: Control DNA	Not available.
	Random 9-mer Primers	Not available.
	Prime-It II 5X dCTP Buffer	Not available.
	Prime-It II 5X dATP Buffer	Not available.
	Exo (-) Klenow	Not available.
	Stop Mix	Not available.
Viscosity	: Control DNA	Not available.
	Random 9-mer Primers	Not available.
	Prime-It II 5X dCTP Buffer	Not available.
	Prime-It II 5X dATP Buffer	Not available.
	Exo (-) Klenow	Not available.
	Stop Mix	Not available.

Section 10. Stability and reactivity

10.1 Reactivity	: Control DNA	No specific test data related to reactivity available for this product or its ingredients.
	Random 9-mer Primers	No specific test data related to reactivity available for this product or its ingredients.
	Prime-It II 5X dCTP Buffer	No specific test data related to reactivity available for this product or its ingredients.
	Prime-It II 5X dATP Buffer	No specific test data related to reactivity available for this product or its ingredients.
	Exo (-) Klenow	No specific test data related to reactivity available for this product or its ingredients.
	Stop Mix	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Control DNA	The product is stable.
	Random 9-mer Primers	The product is stable.
	Prime-It II 5X dCTP Buffer	The product is stable.
	Prime-It II 5X dATP Buffer	The product is stable.
	Exo (-) Klenow	The product is stable.
	Stop Mix	The product is stable.

Section 10. Stability and reactivity

10.3 Possibility of hazardous reactions

: Control DNA	Under normal conditions of storage and use, hazardous reactions will not occur.
Random 9-mer Primers	Under normal conditions of storage and use, hazardous reactions will not occur.
Prime-It II 5X dCTP Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
Prime-It II 5X dATP Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
Exo (-) Klenow	Under normal conditions of storage and use, hazardous reactions will not occur.
Stop Mix	Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

: Control DNA	No specific data.
Random 9-mer Primers	No specific data.
Prime-It II 5X dCTP Buffer	No specific data.
Prime-It II 5X dATP Buffer	No specific data.
Exo (-) Klenow	No specific data.
Stop Mix	No specific data.

10.5 Incompatible materials

: Control DNA	May react or be incompatible with oxidizing materials.
Random 9-mer Primers	May react or be incompatible with oxidizing materials.
Prime-It II 5X dCTP Buffer	May react or be incompatible with oxidizing materials.
Prime-It II 5X dATP Buffer	May react or be incompatible with oxidizing materials.
Exo (-) Klenow	May react or be incompatible with oxidizing materials.
Stop Mix	May react or be incompatible with oxidizing materials.

10.6 Hazardous decomposition products

: Control DNA	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Random 9-mer Primers	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Prime-It II 5X dCTP Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Prime-It II 5X dATP Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Exo (-) Klenow	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Stop Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Exo (-) Klenow Glycerol	LD50 Oral	Rat	12600 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Exo (-) Klenow Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Prime-It II 5X dCTP Buffer 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	Category 3	Not applicable.	Respiratory tract irritation
Prime-It II 5X dATP Buffer 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure

Control DNA	Not available.
Random 9-mer Primers	Not available.
Prime-It II 5X dCTP Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation.
Prime-It II 5X dATP Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation.
Exo (-) Klenow	Routes of entry anticipated: Oral, Dermal, Inhalation.
Stop Mix	Routes of entry anticipated: Oral, Dermal,

Section 11. Toxicological information

Inhalation.

Potential acute health effects

Eye contact	: <input checked="" type="checkbox"/> Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes eye irritation. Causes serious eye irritation.
Inhalation	: <input checked="" type="checkbox"/> Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: <input checked="" type="checkbox"/> Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: <input checked="" type="checkbox"/> Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: <input checked="" type="checkbox"/> Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: irritation watering redness Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: <input checked="" type="checkbox"/> Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
Skin contact	: <input checked="" type="checkbox"/> Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.

Section 11. Toxicological information

Ingestion	: Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
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Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	: Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Developmental effects	: Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: Control DNA Random 9-mer Primers Prime-It II 5X dCTP Buffer Prime-It II 5X dATP Buffer Exo (-) Klenow Stop Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Section 11. Toxicological information

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Exo (-) Klenow Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Stop Mix Edetic acid	Acute EC50 113000 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 41000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Exo (-) Klenow Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Stop Mix Edetic acid	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Exo (-) Klenow Glycerol	-1.76	-	low
Stop Mix Edetic acid	-3.86	1.8	low

12.4 Mobility in soil

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

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

Section 13. Disposal considerations

13.1 Waste treatment methods

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

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

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

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

Section 14. Transport information

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

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

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

Section 15. Regulatory information

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

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined
Clean Water Act (CWA) 311: Edetic acid

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

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

Section 15. Regulatory information

[SARA 302/304](#)

[Composition/information on ingredients](#)

No products were found.

SARA 304 RQ : Not applicable.

[SARA 311/312](#)

Classification :

Control DNA	Not applicable.
Random 9-mer Primers	Not applicable.
Prime-It II 5X dCTP Buffer	Not applicable.
Prime-It II 5X dATP Buffer	Not applicable.
Exo (-) Klenow	EYE IRRITATION - Category 2B
Stop Mix	EYE IRRITATION - Category 2A

[Composition/information on ingredients](#)

Name	%	Classification
Prime-It II 5X dCTP Buffer 2-Amino-2-(hydroxymethyl) propane-1,3-diol hydrochloride	≤3	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Prime-It II 5X dATP Buffer 2-Amino-2-(hydroxymethyl) propane-1,3-diol hydrochloride	≤3	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Exo (-) Klenow Glycerol	≥50 - ≤75	EYE IRRITATION - Category 2A
Stop Mix Edetic acid	≥10 - ≤25	EYE IRRITATION - Category 2A

[State regulations](#)

Massachusetts : The following components are listed: ETHYLENEDIAMINE TETRAACETIC ACID; EDTA; GLYCERINE MIST

New York : The following components are listed: Ethylenediamine tetraacetic acid; EDTA

New Jersey : The following components are listed: ETHYLENEDIAMINETETRAACETIC ACID; GLYCINE, N,N'-1,2-ETHANEDIYLBIS[N-(CARBOXYMETHYL)-]; EDTA; GLYCERIN; 1,2,3-PROPANETRIOL

Pennsylvania : The following components are listed: GLYCINE, N,N'-1,2-ETHANEDIYLBIS[N-(CARBOXYMETHYL)-]; 1,2,3-PROPANETRIOL

[International regulations](#)

[Chemical Weapon Convention List Schedules I, II & III Chemicals](#)

Not listed.

[Montreal Protocol \(Annexes A, B, C, E\)](#)

Not listed.

[Stockholm Convention on Persistent Organic Pollutants](#)

Not listed.

[Rotterdam Convention on Prior Informed Consent \(PIC\)](#)

Not listed.

[UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Section 15. Regulatory information

Not listed.

Inventory list

Australia	: Not determined.
Canada	: Not determined.
China	: All components are listed or exempted.
Europe	: All components are listed or exempted.
Japan	: <input checked="" type="checkbox"/> 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.
Taiwan	: All components are listed or exempted.
Thailand	: <input checked="" type="checkbox"/> Not determined.
Turkey	: <input checked="" type="checkbox"/> Not determined.
United States	: All components are listed or exempted.
Viet Nam	: <input checked="" type="checkbox"/> Not determined.

Section 16. Other information

History

Date of issue	: 12/31/2017
Date of previous issue	: 09/04/2015.
Version	: 2

Indicates information that has changed from previously issued version.

Notice to reader

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