

SAFETY DATA SHEET



PCR-RFLP Fish Species ID Kit, Part Number 5500-0001

Section 1. Identification

1.1 Product identifier

Product name : PCR-RFLP Fish Species ID Kit, Part Number 5500-0001

Part no. (chemical kit) : 5500-0001

Part no. :

<input checked="" type="checkbox"/> PCR Master Mix	5190-2345
10X PCR Primer Mix	5190-2346
60 mM EDTA	5190-2354
10X Ddel Buffer	5190-2348
10X NlaIII/HaeIII Buffer	5190-2347
100X BSA	5190-2352
10X Ddel Restriction Enzyme	5190-2350
10X NlaIII Restriction Enzyme	5190-2351
10X HaeIII Restriction Enzyme	5190-2349
Positive Control Salmon DNA	5190-2353
Nuclease Free Water	5190-2355

Validation date : 3/27/2022

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

Material uses : Analytical reagent.

<input checked="" type="checkbox"/> PCR Master Mix	1.25 ml
10X PCR Primer Mix	0.25 ml
60 mM EDTA	0.3 ml
10X Ddel Buffer	0.05 ml
10X NlaIII/HaeIII Buffer	0.1 ml
100X BSA	0.1 ml
10X Ddel Restriction Enzyme	0.05 ml
10X NlaIII Restriction Enzyme	0.05 ml
10X HaeIII Restriction Enzyme	0.05 ml
Positive Control Salmon DNA	0.01 ml (250 ng/μl 10 μl)
Nuclease Free Water	0.11 ml

1.3 Details of the supplier of the safety data sheet

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

1.4 Emergency telephone number

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

Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status :	<input checked="" type="checkbox"/> PCR Master Mix	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	10X PCR Primer Mix	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product.

Section 2. Hazards identification

	This SDS should be retained and available for employees and other users of this product.
60 mM EDTA	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
10X Ddel Buffer	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
10X NlaIII/HaeIII 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.
100X BSA	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.
10X Ddel Restriction Enzyme	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
10X NlaIII Restriction Enzyme	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
10X HaeIII Restriction Enzyme	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Positive Control Salmon 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.
Nuclease Free Water	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture

60 mM EDTA H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
10X Ddel Buffer H412	AQUATIC HAZARD (LONG-TERM) - Category 3
10X Ddel Restriction Enzyme H320	EYE IRRITATION - Category 2B
10X NlaIII Restriction Enzyme H320	EYE IRRITATION - Category 2B
10X HaeIII Restriction Enzyme H320	EYE IRRITATION - Category 2B
10X NlaIII/HaeIII Buffer	Percentage of the mixture consisting of ingredient (s) of unknown hazards to the aquatic environment: 3.6%
100X BSA	Percentage of the mixture consisting of ingredient (s) of unknown hazards to the aquatic environment: 1%


2.2 GHS label elements

Section 2. Hazards identification

Hazard pictograms :  60 mM EDTA




Signal word

:  PCR Master Mix
 10X PCR Primer Mix
 60 mM EDTA
 10X Ddel Buffer
 10X NlaIII/HaeIII Buffer
 100X BSA
 10X Ddel Restriction Enzyme
 10X NlaIII Restriction Enzyme
 10X HaeIII Restriction Enzyme
 Positive Control Salmon DNA
 Nuclease Free Water

No signal word.
 No signal word.
 Warning
 No signal word.
 No signal word.
 No signal word.
 Warning
 Warning
 Warning
 No signal word.
 No signal word.

Hazard statements

:  PCR Master Mix
 10X PCR Primer Mix
 60 mM EDTA


10X Ddel Buffer

10X NlaIII/HaeIII Buffer
 100X BSA
 10X Ddel Restriction Enzyme
 10X NlaIII Restriction Enzyme
 10X HaeIII Restriction Enzyme
 Positive Control Salmon DNA
 Nuclease Free Water

No known significant effects or critical hazards.
 No known significant effects or critical hazards.
 H373 - May cause damage to organs through prolonged or repeated exposure. (kidneys)
 H412 - Harmful to aquatic life with long lasting effects.
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.
 H320 - Causes eye irritation.
 H320 - Causes eye irritation.
 H320 - Causes eye irritation.
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.


Precautionary statements

Prevention

:  PCR Master Mix
 10X PCR Primer Mix
 60 mM EDTA
 10X Ddel Buffer
 10X NlaIII/HaeIII Buffer
 100X BSA
 10X Ddel Restriction Enzyme
 10X NlaIII Restriction Enzyme
 10X HaeIII Restriction Enzyme
 Positive Control Salmon DNA
 Nuclease Free Water

Not applicable.
 Not applicable.
 P260 - Do not breathe vapor.
 P273 - Avoid release to the environment.
 Not applicable.
 Not applicable.
 Not applicable.
 Not applicable.
 Not applicable.
 Not applicable.
 Not applicable.
 Not applicable.
 Not applicable.

Response

:  PCR Master Mix
 10X PCR Primer Mix
 60 mM EDTA

10X Ddel Buffer
 10X NlaIII/HaeIII Buffer
 100X BSA
 10X Ddel Restriction Enzyme

10X NlaIII Restriction Enzyme

Not applicable.
 Not applicable.
 P314 - Get medical advice or attention if you feel unwell.
 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 advice or 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.

Section 2. Hazards identification

	10X HaeIII Restriction Enzyme	P337 + P313 - If eye irritation persists: Get medical advice or 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 advice or attention.
Storage	Positive Control Salmon DNA Nuclease Free Water	Not applicable. Not applicable.
	: <input checked="" type="checkbox"/> PCR Master Mix	Not applicable.
	10X PCR Primer Mix	Not applicable.
	60 mM EDTA	Not applicable.
	10X Ddel Buffer	Not applicable.
	10X NlaIII/HaeIII Buffer	Not applicable.
	100X BSA	Not applicable.
	10X Ddel Restriction Enzyme	Not applicable.
	10X NlaIII Restriction Enzyme	Not applicable.
	10X HaeIII Restriction Enzyme	Not applicable.
Disposal	Positive Control Salmon DNA Nuclease Free Water	Not applicable. Not applicable.
	: <input checked="" type="checkbox"/> PCR Master Mix	Not applicable.
	10X PCR Primer Mix	Not applicable.
	60 mM EDTA	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	10X Ddel Buffer	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	10X NlaIII/HaeIII Buffer	Not applicable.
	100X BSA	Not applicable.
	10X Ddel Restriction Enzyme	Not applicable.
	10X NlaIII Restriction Enzyme	Not applicable.
	10X HaeIII Restriction Enzyme	Not applicable.
Supplemental label elements	Positive Control Salmon DNA Nuclease Free Water	Not applicable. Not applicable.
	: <input checked="" type="checkbox"/> PCR Master Mix	None known.
	10X PCR Primer Mix	None known.
	60 mM EDTA	None known.
	10X Ddel Buffer	None known.
	10X NlaIII/HaeIII Buffer	None known.
	100X BSA	None known.
	10X Ddel Restriction Enzyme	None known.
	10X NlaIII Restriction Enzyme	None known.
	10X HaeIII Restriction Enzyme	None known.
2.3 Other hazards Hazards not otherwise classified	Positive Control Salmon DNA Nuclease Free Water	None known. None known.
	: <input checked="" type="checkbox"/> PCR Master Mix	None known.
	10X PCR Primer Mix	None known.
	60 mM EDTA	None known.
	10X Ddel Buffer	None known.
	10X NlaIII/HaeIII Buffer	None known.
	100X BSA	None known.
	10X Ddel Restriction Enzyme	None known.
	10X NlaIII Restriction Enzyme	None known.
	10X HaeIII Restriction Enzyme	None known.
Positive Control Salmon DNA	None known.	

Section 2. Hazards identification

Nuclease Free Water

None known.

Section 3. Composition/information on ingredients

Substance/mixture	: <input checked="" type="checkbox"/> PCR Master Mix	Mixture
	10X PCR Primer Mix	Mixture
	60 mM EDTA	Mixture
	10X Ddel Buffer	Mixture
	10X NlaIII/HaeIII Buffer	Mixture
	100X BSA	Mixture
	10X Ddel Restriction Enzyme	Mixture
	10X NlaIII Restriction Enzyme	Mixture
	10X HaeIII Restriction Enzyme	Mixture
	Positive Control Salmon DNA	Mixture
	Nuclease Free Water	Substance

Ingredient name	%	CAS number
<input checked="" type="checkbox"/> PCR Master Mix		
Glycerol	≤3	56-81-5
Magnesium chloride	<0.25	7786-30-3
60 mM EDTA		
Edetic acid	≤3	60-00-4
10X Ddel Buffer		
Sodium chloride	<10	7647-14-5
Magnesium chloride	<2.5	7786-30-3
10X NlaIII/HaeIII Buffer		
[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]ammonium acetate	≤5	6850-28-8
100X BSA		
Glycerol	<10	56-81-5
10X Ddel Restriction Enzyme		
Glycerol	≥50 - ≤75	56-81-5
10X NlaIII Restriction Enzyme		
Glycerol	≥50 - ≤75	56-81-5
Potassium chloride	≤3	7447-40-7
10X HaeIII Restriction Enzyme		
Glycerol	≥50 - ≤75	56-81-5
Nuclease Free Water		
water	100	7732-18-5

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

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified 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	: 2X PCR Master Mix	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	10X PCR Primer Mix	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	60 mM EDTA	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 following exposure or if feeling unwell.
	10X Ddel 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.
	10X NlaIII/HaeIII 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.
	100X BSA	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.
	10X Ddel Restriction Enzyme	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.
	10X NlaIII Restriction Enzyme	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.
	10X HaeIII Restriction Enzyme	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.
	Positive Control Salmon 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.
	Nuclease Free Water	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	: 2X PCR Master Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	10X PCR Primer Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	60 mM EDTA	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not

Section 4. First aid measures

	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 following exposure or if feeling unwell. 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.
10X Ddel Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
10X NlaIII/HaeIII 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.
100X BSA	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.
10X Ddel Restriction Enzyme	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.
10X NlaIII Restriction Enzyme	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

Section 4. First aid measures

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.

10X HaeIII Restriction Enzyme

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.

Positive Control Salmon DNA

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

Nuclease Free Water

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

Skin contact

: 2X PCR Master Mix

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

10X PCR Primer Mix

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

60 mM EDTA

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

10X Ddel Buffer

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

10X NlaIII/HaeIII Buffer

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

100X BSA

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

10X Ddel Restriction Enzyme

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.

10X NlaIII Restriction Enzyme


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.

10X HaeIII Restriction Enzyme

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get

Section 4. First aid measures

Ingestion

Positive Control Salmon DNA	medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Nuclease Free Water	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
:  PCR Master Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
10X PCR Primer Mix	Wash out mouth with water. 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.
60 mM EDTA	Wash out mouth with water. 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. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention following exposure or if feeling unwell. 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.
10X Ddel Buffer	Wash out mouth with water. Remove dentures if any. 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.
10X NlaIII/HaeIII Buffer	Wash out mouth with water. 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.
100X BSA	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Section 4. First aid measures

10X Ddel Restriction Enzyme

occur.

Wash out mouth with water. Remove dentures if any. 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.

10X NlaIII Restriction Enzyme

Wash out mouth with water. Remove dentures if any. 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.

10X HaeIII Restriction Enzyme

Wash out mouth with water. Remove dentures if any. 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.

Positive Control Salmon DNA

Wash out mouth with water. 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.

Nuclease Free Water

Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Section 4. First aid measures

Eye contact	: <input checked="" type="checkbox"/> PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X Ddel Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X Ddel Restriction Enzyme 10X NlaIII Restriction Enzyme 10X HaeIII Restriction Enzyme Positive Control Salmon DNA Nuclease Free Water	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. Causes eye irritation. Causes eye irritation. Causes eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards.
Inhalation	: <input checked="" type="checkbox"/> PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X Ddel Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X Ddel Restriction Enzyme 10X NlaIII Restriction Enzyme 10X HaeIII Restriction Enzyme Positive Control Salmon DNA Nuclease Free Water	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.
Skin contact	: <input checked="" type="checkbox"/> PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X Ddel Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X Ddel Restriction Enzyme 10X NlaIII Restriction Enzyme 10X HaeIII Restriction Enzyme Positive Control Salmon DNA Nuclease Free Water	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.
Ingestion	: <input checked="" type="checkbox"/> PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X Ddel Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X Ddel Restriction Enzyme 10X NlaIII Restriction Enzyme 10X HaeIII Restriction Enzyme Positive Control Salmon DNA Nuclease Free Water	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.

Over-exposure signs/symptoms

Eye contact	: <input checked="" type="checkbox"/> PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X Ddel Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X Ddel Restriction Enzyme 10X NlaIII Restriction Enzyme	No specific data. No specific data. 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: irritation watering
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Section 4. First aid measures

	10X HaeIII Restriction Enzyme	redness Adverse symptoms may include the following: irritation watering redness
Inhalation	Positive Control Salmon DNA	No specific data.
	Nuclease Free Water	No specific data.
	: <input checked="" type="checkbox"/> PCR Master Mix	No specific data.
	10X PCR Primer Mix	No specific data.
	60 mM EDTA	No specific data.
	10X Ddel Buffer	No specific data.
	10X NlaIII/HaeIII Buffer	No specific data.
	100X BSA	No specific data.
	10X Ddel Restriction Enzyme	No specific data.
	10X NlaIII Restriction Enzyme	No specific data.
Skin contact	10X HaeIII Restriction Enzyme	No specific data.
	Positive Control Salmon DNA	No specific data.
	Nuclease Free Water	No specific data.
	: <input checked="" type="checkbox"/> PCR Master Mix	No specific data.
	10X PCR Primer Mix	No specific data.
	60 mM EDTA	No specific data.
	10X Ddel Buffer	No specific data.
	10X NlaIII/HaeIII Buffer	No specific data.
	100X BSA	No specific data.
	10X Ddel Restriction Enzyme	No specific data.
Ingestion	10X NlaIII Restriction Enzyme	No specific data.
	10X HaeIII Restriction Enzyme	No specific data.
	Positive Control Salmon DNA	No specific data.
	Nuclease Free Water	No specific data.
	: <input checked="" type="checkbox"/> PCR Master Mix	No specific data.
	10X PCR Primer Mix	No specific data.
	60 mM EDTA	No specific data.
	10X Ddel Buffer	No specific data.
	10X NlaIII/HaeIII Buffer	No specific data.
	100X BSA	No specific data.
10X Ddel Restriction Enzyme	No specific data.	

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

Notes to physician	: <input checked="" type="checkbox"/> PCR Master Mix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	10X PCR Primer Mix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	60 mM EDTA	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.
	10X Ddel 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.
	10X NlaIII/HaeIII Buffer	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed

Section 4. First aid measures

	100X BSA	person may need to be kept under medical surveillance for 48 hours.
	10X Ddel Restriction Enzyme	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.
	10X NlaIII Restriction Enzyme	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	10X HaeIII Restriction Enzyme	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Positive Control Salmon DNA	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Nuclease Free Water	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: <input checked="" type="checkbox"/> PCR Master Mix	No specific treatment.
	10X PCR Primer Mix	No specific treatment.
	60 mM EDTA	No specific treatment.
	10X Ddel Buffer	No specific treatment.
	10X NlaIII/HaeIII Buffer	No specific treatment.
	100X BSA	No specific treatment.
	10X Ddel Restriction Enzyme	No specific treatment.
	10X NlaIII Restriction Enzyme	No specific treatment.
	10X HaeIII Restriction Enzyme	No specific treatment.
	Positive Control Salmon DNA	No specific treatment.
	Nuclease Free Water	No specific treatment.
Protection of first-aiders	: <input checked="" type="checkbox"/> PCR Master Mix	No action shall be taken involving any personal risk or without suitable training.
	10X PCR Primer Mix	No action shall be taken involving any personal risk or without suitable training.
	60 mM EDTA	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.
	10X Ddel Buffer	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	10X NlaIII/HaeIII Buffer	No action shall be taken involving any personal risk or without suitable training.
	100X BSA	No action shall be taken involving any personal risk or without suitable training.
	10X Ddel Restriction Enzyme	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.
	10X NlaIII Restriction Enzyme	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.
	10X HaeIII Restriction Enzyme	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.

Section 4. First aid measures

Positive Control Salmon DNA	No action shall be taken involving any personal risk or without suitable training.
Nuclease Free Water	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	: <input checked="" type="checkbox"/> PCR Master Mix	Use an extinguishing agent suitable for the surrounding fire.
	10X PCR Primer Mix	Use an extinguishing agent suitable for the surrounding fire.
	60 mM EDTA	Use an extinguishing agent suitable for the surrounding fire.
	10X Ddel Buffer	Use an extinguishing agent suitable for the surrounding fire.
	10X NlaIII/HaeIII Buffer	Use an extinguishing agent suitable for the surrounding fire.
	100X BSA	Use an extinguishing agent suitable for the surrounding fire.
	10X Ddel Restriction Enzyme	Use an extinguishing agent suitable for the surrounding fire.
	10X NlaIII Restriction Enzyme	Use an extinguishing agent suitable for the surrounding fire.
	10X HaeIII Restriction Enzyme	Use an extinguishing agent suitable for the surrounding fire.
	Positive Control Salmon DNA	Use an extinguishing agent suitable for the surrounding fire.
	Nuclease Free Water	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: <input checked="" type="checkbox"/> PCR Master Mix	None known.
	10X PCR Primer Mix	None known.
	60 mM EDTA	None known.
	10X Ddel Buffer	None known.
	10X NlaIII/HaeIII Buffer	None known.
	100X BSA	None known.
	10X Ddel Restriction Enzyme	None known.
	10X NlaIII Restriction Enzyme	None known.
	10X HaeIII Restriction Enzyme	None known.
	Positive Control Salmon DNA	None known.
	Nuclease Free Water	None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	: <input checked="" type="checkbox"/> PCR Master Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
	10X PCR Primer Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
	60 mM EDTA	In a fire or if heated, a pressure increase will occur and the container may burst.
	10X Ddel Buffer	In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
	10X NlaIII/HaeIII Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.

Section 5. Fire-fighting measures

Hazardous thermal decomposition products

100X BSA	In a fire or if heated, a pressure increase will occur and the container may burst.
10X Ddel Restriction Enzyme	In a fire or if heated, a pressure increase will occur and the container may burst.
10X NlaIII Restriction Enzyme	In a fire or if heated, a pressure increase will occur and the container may burst.
10X HaeIII Restriction Enzyme	In a fire or if heated, a pressure increase will occur and the container may burst.
Positive Control Salmon DNA	In a fire or if heated, a pressure increase will occur and the container may burst.
Nuclease Free Water	In a fire or if heated, a pressure increase will occur and the container may burst.
2X PCR Master Mix	Decomposition products may include the following materials: carbon dioxide carbon monoxide
10X PCR Primer Mix 60 mM EDTA	No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
10X Ddel Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
10X NlaIII/HaeIII Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides metal oxide/oxides
100X BSA	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides
10X Ddel Restriction Enzyme	Decomposition products may include the following materials: carbon dioxide carbon monoxide
10X NlaIII Restriction Enzyme	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
10X HaeIII Restriction Enzyme	Decomposition products may include the following materials: carbon dioxide carbon monoxide
Positive Control Salmon DNA	No specific data.
Nuclease Free Water	No specific data.

5.3 Advice for firefighters

Section 5. Fire-fighting measures

Special protective actions for fire-fighters :  PCR Master Mix

10X PCR Primer Mix

60 mM EDTA

10X Ddel Buffer

10X NlaIII/HaeIII Buffer

100X BSA

10X Ddel Restriction Enzyme

10X NlaIII Restriction Enzyme

10X HaeIII Restriction Enzyme

Positive Control Salmon DNA

Nuclease Free Water

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

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.

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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 :  PCR Master Mix

10X PCR Primer Mix

60 mM EDTA

10X Ddel Buffer

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

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

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


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

Section 5. Fire-fighting measures

10X NlaIII/HaeIII Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
100X BSA	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
10X Ddel Restriction Enzyme	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
10X NlaIII Restriction Enzyme	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
10X HaeIII Restriction Enzyme	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Positive Control Salmon DNA	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Nuclease Free Water	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:  PCR Master Mix	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
	10X PCR Primer Mix	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
	60 mM EDTA	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.
	10X Ddel Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when

Section 6. Accidental release measures

10X NlaIII/HaeIII Buffer	<p>ventilation is inadequate. Put on appropriate personal protective equipment. 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.</p>
100X BSA	<p>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.</p>
10X Ddel Restriction Enzyme	<p>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.</p>
10X NlaIII Restriction Enzyme	<p>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.</p>
10X HaeIII Restriction Enzyme	<p>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.</p>
Positive Control Salmon DNA	<p>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.</p>
Nuclease Free Water	<p>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.</p>
For emergency responders : 2X PCR Master Mix	<p>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".</p>
10X PCR Primer Mix	<p>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</p>

Section 6. Accidental release measures

60 mM EDTA	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".
10X Ddel Buffer	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
10X NlaIII/HaeIII Buffer	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
100X BSA	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".
10X Ddel Restriction Enzyme	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".
10X NlaIII Restriction Enzyme	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".
10X HaeIII Restriction Enzyme	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".
Positive Control Salmon 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".
Nuclease Free Water	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

: 2X PCR Master 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).
10X PCR Primer Mix	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
60 mM EDTA	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).
10X Ddel 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). Water polluting material. May be harmful to the environment if released in large quantities.

Section 6. Accidental release measures

10X NlaIII/HaeIII 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).
100X BSA	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).
10X Ddel Restriction Enzyme	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).
10X NlaIII Restriction Enzyme	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).
10X HaeIII Restriction Enzyme	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).
Positive Control Salmon 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).
Nuclease Free Water	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : 2X PCR Master 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.

10X PCR Primer Mix

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

60 mM EDTA

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.

10X Ddel 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.

Section 6. Accidental release measures

10X NlaIII/HaeIII Buffer	disposal container. Dispose of via a licensed waste 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.
100X BSA	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.
10X Ddel Restriction Enzyme	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.
10X NlaIII Restriction Enzyme	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.
10X HaeIII Restriction Enzyme	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.
Positive Control Salmon 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.
Nuclease Free Water	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures	:	2X PCR Master Mix	Put on appropriate personal protective equipment (see Section 8).
		10X PCR Primer Mix	Put on appropriate personal protective equipment (see Section 8).
		60 mM EDTA	Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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

10X Ddel Buffer	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. 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.
10X NlaIII/HaeIII Buffer	Put on appropriate personal protective equipment (see Section 8).
100X BSA	Put on appropriate personal protective equipment (see Section 8).
10X Ddel Restriction Enzyme	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.
10X NlaIII Restriction Enzyme	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.
10X HaeIII Restriction Enzyme	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.
Positive Control Salmon DNA	Put on appropriate personal protective equipment (see Section 8).
Nuclease Free Water	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene :  PCR Master Mix	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
10X PCR Primer Mix	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
60 mM EDTA	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

Section 7. Handling and storage

10X Ddel Buffer	before entering eating areas. See also Section 8 for additional information on hygiene measures. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
10X NlaIII/HaeIII 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.
100X BSA	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.
10X Ddel Restriction Enzyme	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.
10X NlaIII Restriction Enzyme	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.
10X HaeIII Restriction Enzyme	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.
Positive Control Salmon DNA	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.
Nuclease Free Water	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

7.2 Conditions for safe storage, including any incompatibilities

:  PCR Master 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.

10X PCR Primer Mix

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

60 mM EDTA

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.

10X Ddel 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.

10X NlaIII/HaeIII 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.

100X BSA

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

Section 7. Handling and storage

10X Ddel Restriction Enzyme

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.

10X NlaIII Restriction Enzyme

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.

10X HaeIII Restriction Enzyme

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.

Positive Control Salmon DNA

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.

Nuclease Free Water

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

Section 7. Handling and storage

incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations

: <input checked="" type="checkbox"/> PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X Ddel Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X Ddel Restriction Enzyme 10X NlaIII Restriction Enzyme 10X HaeIII Restriction Enzyme Positive Control Salmon DNA Nuclease Free Water	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 applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
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Industrial sector specific solutions

: <input checked="" type="checkbox"/> PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X Ddel Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X Ddel Restriction Enzyme 10X NlaIII Restriction Enzyme 10X HaeIII Restriction Enzyme Positive Control Salmon DNA Nuclease Free Water	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
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Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
<input checked="" type="checkbox"/> PCR Master Mix 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, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust
Magnesium chloride	None.
60 mM EDTA Edetic acid	None.
10X Ddel Buffer Sodium chloride Magnesium chloride	None. None.
10X NlaIII/HaeIII Buffer [2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]ammonium acetate	None.
100X BSA Glycerol	OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction

Section 8. Exposure controls/personal protection

<p>10X Ddel Restriction Enzyme Glycerol</p>	<p>TWA: 10 mg/m³ 8 hours. Form: Total dust OSHA PEL (United States, 5/2018). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust</p>
<p>10X NlaIII Restriction Enzyme Glycerol</p>	<p>OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 10 mg/m³ 8 hours. Form: Total dust OSHA PEL (United States, 5/2018). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust</p>
<p>Potassium chloride</p> <p>10X HaeIII Restriction Enzyme Glycerol</p>	<p>OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 10 mg/m³ 8 hours. Form: Total dust OSHA PEL (United States, 5/2018). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust None.</p>
<p>Nuclease Free Water water</p>	<p>OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 10 mg/m³ 8 hours. Form: Total dust OSHA PEL (United States, 5/2018). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust None.</p>

8.2 Exposure controls

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls

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

Individual protection measures

Hygiene measures

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

Section 8. Exposure controls/personal protection

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

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state	:	<input checked="" type="checkbox"/> PCR Master Mix	Liquid.
		10X PCR Primer Mix	Liquid.
		60 mM EDTA	Liquid.
		10X Ddel Buffer	Liquid.
		10X NlaIII/HaeIII Buffer	Liquid.
		100X BSA	Liquid.
		10X Ddel Restriction Enzyme	Liquid.
		10X NlaIII Restriction Enzyme	Liquid.
		10X HaeIII Restriction Enzyme	Liquid.
		Positive Control Salmon DNA Nuclease Free Water	Liquid.
Color	:	<input checked="" type="checkbox"/> PCR Master Mix	Not available.
		10X PCR Primer Mix	Not available.
		60 mM EDTA	Not available.
		10X Ddel Buffer	Not available.
		10X NlaIII/HaeIII Buffer	Not available.
		100X BSA	Not available.
		10X Ddel Restriction Enzyme	Not available.
		10X NlaIII Restriction Enzyme	Not available.
		10X HaeIII Restriction Enzyme	Not available.
		Positive Control Salmon DNA Nuclease Free Water	Colorless.
Odor	:	<input checked="" type="checkbox"/> PCR Master Mix	Not available.
		10X PCR Primer Mix	Not available.
		60 mM EDTA	Not available.
		10X Ddel Buffer	Not available.
		10X NlaIII/HaeIII Buffer	Not available.
		100X BSA	Not available.
		10X Ddel Restriction Enzyme	Not available.
	10X NlaIII Restriction Enzyme	Not available.	

Section 9. Physical and chemical properties and safety characteristics

	10X HaeIII Restriction Enzyme	Not available.
	Positive Control Salmon DNA	Not available.
	Nuclease Free Water	Odorless.
Odor threshold	: <input checked="" type="checkbox"/> PCR Master Mix	Not available.
	10X PCR Primer Mix	Not available.
	60 mM EDTA	Not available.
	10X Ddel Buffer	Not available.
	10X NlaIII/HaeIII Buffer	Not available.
	100X BSA	Not available.
	10X Ddel Restriction Enzyme	Not available.
	10X NlaIII Restriction Enzyme	Not available.
	10X HaeIII Restriction Enzyme	Not available.
	Positive Control Salmon DNA	Not available.
	Nuclease Free Water	Not available.
pH	: <input checked="" type="checkbox"/> PCR Master Mix	8.8
	10X PCR Primer Mix	8.8
	60 mM EDTA	8.8
	10X Ddel Buffer	Not available.
	10X NlaIII/HaeIII Buffer	Not available.
	100X BSA	Not available.
	10X Ddel Restriction Enzyme	Not available.
	10X NlaIII Restriction Enzyme	Not available.
	10X HaeIII Restriction Enzyme	Not available.
	Positive Control Salmon DNA	Not available.
	Nuclease Free Water	7
Melting point/freezing point	: <input checked="" type="checkbox"/> PCR Master Mix	0°C (32°F)
	10X PCR Primer Mix	0°C (32°F)
	60 mM EDTA	Not available.
	10X Ddel Buffer	Not available.
	10X NlaIII/HaeIII Buffer	Not available.
	100X BSA	0°C (32°F)
	10X Ddel Restriction Enzyme	Not available.
	10X NlaIII Restriction Enzyme	Not available.
	10X HaeIII Restriction Enzyme	Not available.
	Positive Control Salmon DNA	0°C (32°F)
	Nuclease Free Water	0°C (32°F)
Boiling point, initial boiling point, and boiling range	: <input checked="" type="checkbox"/> PCR Master Mix	100°C (212°F)
	10X PCR Primer Mix	100°C (212°F)
	60 mM EDTA	Not available.
	10X Ddel Buffer	Not available.
	10X NlaIII/HaeIII Buffer	Not available.
	100X BSA	100°C (212°F)
	10X Ddel Restriction Enzyme	Not available.
	10X NlaIII Restriction Enzyme	Not available.
	10X HaeIII Restriction Enzyme	Not available.
	Positive Control Salmon DNA	100°C (212°F)
	Nuclease Free Water	100°C (212°F)

Flash point	:	Closed cup			Open cup			
		Ingredient name	°C	°F	Method	°C	°F	Method
		<input checked="" type="checkbox"/> PCR Master Mix						
		Edetic acid	>100	>212	DIN 51758			
		(R*,R*) -1,4-Dimercaptobutane- 2,3-diol	>110	>230				
		60 mM EDTA						

Section 9. Physical and chemical properties and safety characteristics

Edetic acid	>100	>212	DIN 51758		
10X Ddel Buffer					
(R*,R*) -1,4-Dimercaptobutane-2,3-diol	>110	>230			
10X NlaIII/HaeIII Buffer					
(R*,R*) -1,4-Dimercaptobutane-2,3-diol	>110	>230			
100X BSA					
Edetic acid	>100	>212	DIN 51758		
Glycerol				177	350.6
10X Ddel Restriction Enzyme					
Edetic acid	>100	>212	DIN 51758		
(R*,R*) -1,4-Dimercaptobutane-2,3-diol	>110	>230			
10X NlaIII Restriction Enzyme					
Edetic acid	>100	>212	DIN 51758		
(R*,R*) -1,4-Dimercaptobutane-2,3-diol	>110	>230			
10X HaeIII Restriction Enzyme					
2-Mercaptoethanol	74	165.2		74	165.2
Edetic acid	>100	>212	DIN 51758		
Positive Control Salmon DNA					
Edetic acid	>100	>212	DIN 51758		

Evaporation rate

- : PCR Master Mix Not available.
- 10X PCR Primer Mix Not available.
- 60 mM EDTA Not available.
- 10X Ddel Buffer Not available.
- 10X NlaIII/HaeIII Buffer Not available.
- 100X BSA Not available.
- 10X Ddel Restriction Enzyme Not available.
- 10X NlaIII Restriction Enzyme Not available.
- 10X HaeIII Restriction Enzyme Not available.
- Positive Control Salmon DNA Not available.
- Nuclease Free Water Not available.

Section 9. Physical and chemical properties and safety characteristics

Flammability	: <input checked="" type="checkbox"/> PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X Ddel Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X Ddel Restriction Enzyme 10X NlaIII Restriction Enzyme 10X HaeIII Restriction Enzyme Positive Control Salmon DNA Nuclease Free Water	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Lower and upper explosion limit/flammability limit	: <input checked="" type="checkbox"/> PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X Ddel Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X Ddel Restriction Enzyme 10X NlaIII Restriction Enzyme 10X HaeIII Restriction Enzyme Positive Control Salmon DNA Nuclease Free Water	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Vapor pressure	: <input checked="" type="checkbox"/> PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X Ddel Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X Ddel Restriction Enzyme 10X NlaIII Restriction Enzyme 10X HaeIII Restriction Enzyme Positive Control Salmon DNA Nuclease Free Water	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. 3.2 kPa (23.8 mm Hg) [room temperature] 12.3 kPa (92.258 mm Hg) [50°C (122°F)]

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
<input checked="" type="checkbox"/> PCR Master Mix						
water	23.8	3.2		92.258	12.3	
Glycerol	0.000075	0.00001		0.0025	0.00033	
10X PCR Primer Mix						
water	23.8	3.2		92.258	12.3	
60 mM EDTA						
water	23.8	3.2		92.258	12.3	
Edetic acid	0	0				
10X Ddel Buffer						
water	23.8	3.2		92.258	12.3	
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001	

Section 9. Physical and chemical properties and safety characteristics

10X NlaIII/HaeIII Buffer					
water	23.8	3.2		92.258	12.3
potassium acetate	0.00000013	0.000000017			
100X BSA					
water	23.8	3.2		92.258	12.3
Glycerol	0.000075	0.00001		0.0025	0.00033
10X Ddel Restriction Enzyme					
water	23.8	3.2		92.258	12.3
Glycerol	0.000075	0.00001		0.0025	0.00033
10X NlaIII Restriction Enzyme					
water	23.8	3.2		92.258	12.3
Glycerol	0.000075	0.00001		0.0025	0.00033
10X HaeIII Restriction Enzyme					
water	23.8	3.2		92.258	12.3
2-Mercaptoethanol	0.98	0.13			
Positive Control Salmon DNA					
water	23.8	3.2		92.258	12.3
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001

Relative vapor density : PCR Master Mix Not available.
 10X PCR Primer Mix Not available.
 60 mM EDTA Not available.
 10X Ddel Buffer Not available.
 10X NlaIII/HaeIII Buffer Not available.
 100X BSA Not available.
 10X Ddel Restriction Enzyme Not available.
 10X NlaIII Restriction Enzyme Not available.
 10X HaeIII Restriction Enzyme Not available.
 Positive Control Salmon DNA Not available.
 Nuclease Free Water 0.62 [Air = 1]

Relative density : PCR Master Mix Not available.
 10X PCR Primer Mix Not available.
 60 mM EDTA Not available.
 10X Ddel Buffer Not available.
 10X NlaIII/HaeIII Buffer Not available.
 100X BSA Not available.
 10X Ddel Restriction Enzyme Not available.
 10X NlaIII Restriction Enzyme Not available.
 10X HaeIII Restriction Enzyme Not available.
 Positive Control Salmon DNA Not available.
 Nuclease Free Water 1

Section 9. Physical and chemical properties and safety characteristics

Solubility : PCR Master Mix Easily soluble in the following materials: cold water and hot water.
 10X PCR Primer Mix Easily soluble in the following materials: cold water and hot water.
 60 mM EDTA Easily soluble in the following materials: cold water and hot water.
 10X Ddel Buffer Easily soluble in the following materials: cold water and hot water.
 10X NlaIII/HaeIII Buffer Easily soluble in the following materials: cold water and hot water.
 100X BSA Easily soluble in the following materials: cold water and hot water.
 10X Ddel Restriction Enzyme Soluble in the following materials: cold water and hot water.
 10X NlaIII Restriction Enzyme Soluble in the following materials: cold water and hot water.
 10X HaeIII Restriction Enzyme Soluble in the following materials: cold water and hot water.
 Positive Control Salmon DNA Easily soluble in the following materials: cold water and hot water.
 Nuclease Free Water Easily soluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/water : PCR Master Mix Not applicable.
 10X PCR Primer Mix Not applicable.
 60 mM EDTA Not applicable.
 10X Ddel Buffer Not applicable.
 10X NlaIII/HaeIII Buffer Not applicable.
 100X BSA Not applicable.
 10X Ddel Restriction Enzyme Not applicable.
 10X NlaIII Restriction Enzyme Not applicable.
 10X HaeIII Restriction Enzyme Not applicable.
 Positive Control Salmon DNA Not applicable.
 Nuclease Free Water -1.38

Auto-ignition temperature :

Ingredient name	°C	°F	Method
<input checked="" type="checkbox"/> PCR Master Mix			
Glycerol	370	698	
Edetic acid	>400	>752	VDI 2263
60 mM EDTA			
Edetic acid	>400	>752	VDI 2263
10X NlaIII/HaeIII Buffer			
Magnesium di(acetate)	310	590	EU A.16
potassium acetate	>410	>770	EU A.16
100X BSA			
Glycerol	370	698	
Edetic acid	>400	>752	VDI 2263
10X Ddel Restriction Enzyme			
Glycerol	370	698	
Edetic acid	>400	>752	VDI 2263

Section 9. Physical and chemical properties and safety characteristics

10X NlaIII Restriction Enzyme			
Glycerol	370	698	VDI 2263
Edetic acid	>400	>752	
10X HaeIII Restriction Enzyme			
2-Mercaptoethanol	295	563	VDI 2263
Glycerol	370	698	
Positive Control Salmon DNA			
Edetic acid	>400	>752	VDI 2263

Decomposition temperature : PCR Master Mix Not available.
 10X PCR Primer Mix Not available.
 60 mM EDTA Not available.
 10X Ddel Buffer Not available.
 10X NlaIII/HaeIII Buffer Not available.
 100X BSA Not available.
 10X Ddel Restriction Enzyme Not available.
 10X NlaIII Restriction Enzyme Not available.
 10X HaeIII Restriction Enzyme Not available.
 Positive Control Salmon DNA Not available.
 Nuclease Free Water Not available.

Viscosity : PCR Master Mix Not available.
 10X PCR Primer Mix Not available.
 60 mM EDTA Not available.
 10X Ddel Buffer Not available.
 10X NlaIII/HaeIII Buffer Not available.
 100X BSA Not available.
 10X Ddel Restriction Enzyme Not available.
 10X NlaIII Restriction Enzyme Not available.
 10X HaeIII Restriction Enzyme Not available.
 Positive Control Salmon DNA Not available.
 Nuclease Free Water Not available.

Particle characteristics

Median particle size : PCR Master Mix Not applicable.
 10X PCR Primer Mix Not applicable.
 60 mM EDTA Not applicable.
 10X Ddel Buffer Not applicable.
 10X NlaIII/HaeIII Buffer Not applicable.
 100X BSA Not applicable.
 10X Ddel Restriction Enzyme Not applicable.
 10X NlaIII Restriction Enzyme Not applicable.
 10X HaeIII Restriction Enzyme Not applicable.
 Positive Control Salmon DNA Not applicable.
 Nuclease Free Water Not applicable.

Section 10. Stability and reactivity

10.1 Reactivity : PCR Master Mix No specific test data related to reactivity available for this product or its ingredients.
 10X PCR Primer Mix No specific test data related to reactivity available for this product or its ingredients.
 60 mM EDTA No specific test data related to reactivity available for this product or its ingredients.
 10X Ddel Buffer No specific test data related to reactivity available for this product or its ingredients.
 10X NlaIII/HaeIII Buffer No specific test data related to reactivity available for this product or its ingredients.

Section 10. Stability and reactivity

100X BSA	for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
10X Ddel Restriction Enzyme	No specific test data related to reactivity available for this product or its ingredients.
10X NlaIII Restriction Enzyme	No specific test data related to reactivity available for this product or its ingredients.
10X HaeIII Restriction Enzyme	No specific test data related to reactivity available for this product or its ingredients.
Positive Control Salmon DNA	No specific test data related to reactivity available for this product or its ingredients.
Nuclease Free Water	No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

: <input checked="" type="checkbox"/> PCR Master Mix	The product is stable.
10X PCR Primer Mix	The product is stable.
60 mM EDTA	The product is stable.
10X Ddel Buffer	The product is stable.
10X NlaIII/HaeIII Buffer	The product is stable.
100X BSA	The product is stable.
10X Ddel Restriction Enzyme	The product is stable.
10X NlaIII Restriction Enzyme	The product is stable.
10X HaeIII Restriction Enzyme	The product is stable.
Positive Control Salmon DNA	The product is stable.
Nuclease Free Water	The product is stable.

10.3 Possibility of hazardous reactions

: <input checked="" type="checkbox"/> PCR Master Mix	Under normal conditions of storage and use, hazardous reactions will not occur.
10X PCR Primer Mix	Under normal conditions of storage and use, hazardous reactions will not occur.
60 mM EDTA	Under normal conditions of storage and use, hazardous reactions will not occur.
10X Ddel Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
10X NlaIII/HaeIII Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
100X BSA	Under normal conditions of storage and use, hazardous reactions will not occur.
10X Ddel Restriction Enzyme	Under normal conditions of storage and use, hazardous reactions will not occur.
10X NlaIII Restriction Enzyme	Under normal conditions of storage and use, hazardous reactions will not occur.
10X HaeIII Restriction Enzyme	Under normal conditions of storage and use, hazardous reactions will not occur.
Positive Control Salmon DNA	Under normal conditions of storage and use, hazardous reactions will not occur.
Nuclease Free Water	Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

: <input checked="" type="checkbox"/> PCR Master Mix	No specific data.
10X PCR Primer Mix	No specific data.
60 mM EDTA	No specific data.
10X Ddel Buffer	No specific data.
10X NlaIII/HaeIII Buffer	No specific data.
100X BSA	No specific data.
10X Ddel Restriction Enzyme	No specific data.
10X NlaIII Restriction Enzyme	No specific data.
10X HaeIII Restriction Enzyme	No specific data.
Positive Control Salmon DNA	No specific data.

Section 10. Stability and reactivity

	Nuclease Free Water	No specific data.
10.5 Incompatible materials	2X PCR Master Mix	May react or be incompatible with oxidizing materials.
	10X PCR Primer Mix	May react or be incompatible with oxidizing materials.
	60 mM EDTA	May react or be incompatible with oxidizing materials.
	10X Ddel Buffer	May react or be incompatible with oxidizing materials.
	10X NlaIII/HaeIII Buffer	May react or be incompatible with oxidizing materials.
	100X BSA	May react or be incompatible with oxidizing materials.
	10X Ddel Restriction Enzyme	May react or be incompatible with oxidizing materials.
	10X NlaIII Restriction Enzyme	May react or be incompatible with oxidizing materials.
	10X HaeIII Restriction Enzyme	May react or be incompatible with oxidizing materials.
	Positive Control Salmon DNA	May react or be incompatible with oxidizing materials.
	Nuclease Free Water	May react or be incompatible with oxidizing materials.
10.6 Hazardous decomposition products	2X PCR Master Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	10X PCR Primer Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	60 mM EDTA	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	10X Ddel Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	10X NlaIII/HaeIII Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	100X BSA	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	10X Ddel Restriction Enzyme	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	10X NlaIII Restriction Enzyme	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	10X HaeIII Restriction Enzyme	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Positive Control Salmon DNA	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Nuclease Free Water	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
2X PCR Master Mix				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Magnesium chloride	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat	2800 mg/kg	-
10X Ddel Buffer				
Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-
Magnesium chloride	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat	2800 mg/kg	-
100X BSA				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
10X Ddel Restriction Enzyme				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
10X NlaIII Restriction Enzyme				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Potassium chloride	LD50 Oral	Rat	2600 mg/kg	-
10X HaeIII Restriction Enzyme				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2X PCR Master Mix					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
10X Ddel Buffer					
Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
100X BSA					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
10X Ddel Restriction Enzyme					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

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				mg	
10X NlaIII Restriction Enzyme Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Potassium chloride	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
10X HaeIII Restriction Enzyme Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
10X NlaIII/HaeIII Buffer [2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]ammonium acetate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
60 mM EDTA Edetic acid	Category 2	-	kidneys

Aspiration hazard

Not available.

Information on the likely routes of exposure	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X Ddel Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X Ddel Restriction Enzyme 	<ul style="list-style-type: none"> Not available. Not available. Routes of entry anticipated: Oral, Dermal, Inhalation. Routes of entry anticipated: Oral, Dermal, Inhalation. Routes of entry anticipated: Oral, Dermal, Inhalation. Not available. Routes of entry anticipated: Oral, Dermal, Inhalation.
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Section 11. Toxicological information

10X NlaIII Restriction Enzyme	Routes of entry anticipated: Oral, Dermal, Inhalation.
10X HaeIII Restriction Enzyme	Routes of entry anticipated: Oral, Dermal, Inhalation.
Positive Control Salmon DNA	Not available.
Nuclease Free Water	Not available.

Potential acute health effects

Eye contact

: <input checked="" type="checkbox"/> PCR Master Mix	No known significant effects or critical hazards.
10X PCR Primer Mix	No known significant effects or critical hazards.
60 mM EDTA	No known significant effects or critical hazards.
10X Ddel Buffer	No known significant effects or critical hazards.
10X NlaIII/HaeIII Buffer	No known significant effects or critical hazards.
100X BSA	No known significant effects or critical hazards.
10X Ddel Restriction Enzyme	Causes eye irritation.
10X NlaIII Restriction Enzyme	Causes eye irritation.
10X HaeIII Restriction Enzyme	Causes eye irritation.
Positive Control Salmon DNA	No known significant effects or critical hazards.
Nuclease Free Water	No known significant effects or critical hazards.

Inhalation

: <input checked="" type="checkbox"/> PCR Master Mix	No known significant effects or critical hazards.
10X PCR Primer Mix	No known significant effects or critical hazards.
60 mM EDTA	No known significant effects or critical hazards.
10X Ddel Buffer	No known significant effects or critical hazards.
10X NlaIII/HaeIII Buffer	No known significant effects or critical hazards.
100X BSA	No known significant effects or critical hazards.
10X Ddel Restriction Enzyme	No known significant effects or critical hazards.
10X NlaIII Restriction Enzyme	No known significant effects or critical hazards.
10X HaeIII Restriction Enzyme	No known significant effects or critical hazards.
Positive Control Salmon DNA	No known significant effects or critical hazards.
Nuclease Free Water	No known significant effects or critical hazards.

Skin contact

: <input checked="" type="checkbox"/> PCR Master Mix	No known significant effects or critical hazards.
10X PCR Primer Mix	No known significant effects or critical hazards.
60 mM EDTA	No known significant effects or critical hazards.
10X Ddel Buffer	No known significant effects or critical hazards.
10X NlaIII/HaeIII Buffer	No known significant effects or critical hazards.
100X BSA	No known significant effects or critical hazards.
10X Ddel Restriction Enzyme	No known significant effects or critical hazards.
10X NlaIII Restriction Enzyme	No known significant effects or critical hazards.
10X HaeIII Restriction Enzyme	No known significant effects or critical hazards.
Positive Control Salmon DNA	No known significant effects or critical hazards.
Nuclease Free Water	No known significant effects or critical hazards.

Ingestion

: <input checked="" type="checkbox"/> PCR Master Mix	No known significant effects or critical hazards.
10X PCR Primer Mix	No known significant effects or critical hazards.
60 mM EDTA	No known significant effects or critical hazards.
10X Ddel Buffer	No known significant effects or critical hazards.
10X NlaIII/HaeIII Buffer	No known significant effects or critical hazards.
100X BSA	No known significant effects or critical hazards.
10X Ddel Restriction Enzyme	No known significant effects or critical hazards.
10X NlaIII Restriction Enzyme	No known significant effects or critical hazards.
10X HaeIII Restriction Enzyme	No known significant effects or critical hazards.
Positive Control Salmon DNA	No known significant effects or critical hazards.
Nuclease Free Water	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Section 11. Toxicological information

Eye contact	: <input checked="" type="checkbox"/> PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X Ddel Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X Ddel Restriction Enzyme 10X NlaIII Restriction Enzyme 10X HaeIII Restriction Enzyme Positive Control Salmon DNA Nuclease Free Water	No specific data. No specific data. 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: irritation watering redness Adverse symptoms may include the following: irritation watering redness No specific data. No specific data.
Inhalation	: <input checked="" type="checkbox"/> PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X Ddel Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X Ddel Restriction Enzyme 10X NlaIII Restriction Enzyme 10X HaeIII Restriction Enzyme Positive Control Salmon DNA Nuclease Free Water	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.
Skin contact	: <input checked="" type="checkbox"/> PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X Ddel Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X Ddel Restriction Enzyme 10X NlaIII Restriction Enzyme 10X HaeIII Restriction Enzyme Positive Control Salmon DNA Nuclease Free Water	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.
Ingestion	: <input checked="" type="checkbox"/> PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X Ddel Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X Ddel Restriction Enzyme 10X NlaIII Restriction Enzyme 10X HaeIII Restriction Enzyme Positive Control Salmon DNA Nuclease Free Water	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.

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

Short term exposure

Potential immediate effects : Not available.

Section 11. Toxicological information

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: <input checked="" type="checkbox"/> PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X Ddel Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X Ddel Restriction Enzyme 10X NlaIII Restriction Enzyme 10X HaeIII Restriction Enzyme Positive Control Salmon DNA Nuclease Free Water	No known significant effects or critical hazards. No known significant effects or critical hazards. May cause damage to organs through prolonged or repeated exposure. 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.
Carcinogenicity	: <input checked="" type="checkbox"/> PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X Ddel Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X Ddel Restriction Enzyme 10X NlaIII Restriction Enzyme 10X HaeIII Restriction Enzyme Positive Control Salmon DNA Nuclease Free Water	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.
Mutagenicity	: <input checked="" type="checkbox"/> PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X Ddel Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X Ddel Restriction Enzyme 10X NlaIII Restriction Enzyme 10X HaeIII Restriction Enzyme Positive Control Salmon DNA Nuclease Free Water	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.
Reproductive toxicity	: <input checked="" type="checkbox"/> PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X Ddel Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X Ddel Restriction Enzyme 10X NlaIII Restriction Enzyme 10X HaeIII Restriction Enzyme Positive Control Salmon DNA Nuclease Free Water	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
2X PCR Master Mix Glycerol Magnesium chloride	12600 2800	N/A 2500	N/A N/A	N/A N/A	N/A N/A
10X Ddel Buffer 10X Ddel Buffer Sodium chloride Magnesium chloride	43659 3000 2800	250000 N/A 2500	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A
10X NlaIII/HaeIII Buffer 10X NlaIII/HaeIII Buffer	65000	N/A	N/A	N/A	N/A
100X BSA Glycerol	12600	N/A	N/A	N/A	N/A
10X Ddel Restriction Enzyme Glycerol	12600	N/A	N/A	N/A	N/A
10X NlaIII Restriction Enzyme 10X NlaIII Restriction Enzyme Glycerol Potassium chloride	173333.3 12600 2600	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A
10X HaeIII Restriction Enzyme Glycerol	12600	N/A	N/A	N/A	N/A

Other information	: 2X PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X Ddel Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X Ddel Restriction Enzyme 10X NlaIII Restriction Enzyme 10X HaeIII Restriction Enzyme Positive Control Salmon DNA Nuclease Free Water	Not available. Not available. Not available. Adverse symptoms may include the following: May cause skin sensitization. Adverse symptoms may include the following: May cause skin sensitization. Not available. Not available. Not available. Not available. Not available. Not available.
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Section 12. Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
2X PCR Master Mix Glycerol Magnesium chloride	Acute LC50 54000 mg/l Fresh water Acute EC50 >100 mg/l Fresh water Acute EC50 180000 µg/l Fresh water Acute IC50 6.8 mg/l Fresh water	Fish - Oncorhynchus mykiss Algae - Desmodesmus subspicatus Crustaceans - Eudiaptomus padanus ssp. padanus - Adult Aquatic plants - Lemna aquinoctialis	96 hours 72 hours 48 hours 96 hours

Section 12. Ecological information

60 mM EDTA Edetic acid	Acute LC50 32000 µg/l Fresh water	Daphnia - Daphnia hyalina - Adult	48 hours
	Acute LC50 2120 mg/l Fresh water	Fish - Pimephales promelas	96 hours
10X Ddel Buffer Sodium chloride	Acute NOEC 100 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Chronic NOEC 0.1 mg/l Fresh water	Fish - Cyprinus carpio	35 days
	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
	Acute EC50 2430000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute EC50 402.6 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic LC10 781 mg/l Fresh water	Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	3 weeks
Magnesium chloride	Chronic NOEC 6 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 0.314 g/L Fresh water	Daphnia - Daphnia pulex	21 days
	Chronic NOEC 100 mg/l Fresh water	Fish - Gambusia holbrooki - Adult	8 weeks
	Acute EC50 >100 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 180000 µg/l Fresh water	Crustaceans - Eudiaptomus padanus ssp. padanus - Adult	48 hours
	Acute IC50 6.8 mg/l Fresh water	Aquatic plants - Lemna aquinoctialis	96 hours
	Acute LC50 32000 µg/l Fresh water	Daphnia - Daphnia hyalina - Adult	48 hours
	Acute LC50 2120 mg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute NOEC 100 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Chronic NOEC 0.1 mg/l Fresh water	Fish - Cyprinus carpio	35 days
100X BSA Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
10X Ddel Restriction Enzyme Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
10X NlaIII Restriction Enzyme Glycerol Potassium chloride	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute EC50 1337000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 9.24 g/L Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 83000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 9.68 mg/l Fresh water	Crustaceans - Pseudosida ramosa - Neonate	48 hours
10X HaeIII Restriction Enzyme Glycerol	Acute LC50 509.65 mg/l Fresh water	Fish - Danio rerio	96 hours
	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

[12.2 Persistence and degradability](#)

Section 12. Ecological information

Product/ingredient name	Test	Result	Dose	Inoculum
2X PCR Master Mix Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
100X BSA Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
10X Ddel Restriction Enzyme Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
10X NlaIII Restriction Enzyme Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
10X HaeIII Restriction Enzyme Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
60 mM EDTA Edetic acid	-	-	Not readily
10X NlaIII Restriction Enzyme Potassium chloride	-	-	Readily
Nuclease Free Water water	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2X PCR Master Mix Glycerol	-1.76	-	low
60 mM EDTA Edetic acid	-3.86	1.8	low
100X BSA Glycerol	-1.76	-	low
10X Ddel Restriction			

Section 12. Ecological information

Enzyme Glycerol	-1.76	-	low
10X NlaIII Restriction Enzyme Glycerol	-1.76	-	low
Potassium chloride	-0.46	-	low
10X HaeIII Restriction Enzyme Glycerol	-1.76	-	low
Nuclease Free Water water	-1.38	-	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.

Section 14. Transport information

Transport in bulk according to IMO instruments : 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

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification	: <input checked="" type="checkbox"/> PCR Master Mix 10X PCR Primer Mix 60 mM EDTA 10X DdeI Buffer 10X NlaIII/HaeIII Buffer 100X BSA 10X DdeI Restriction Enzyme 10X NlaIII Restriction Enzyme 10X HaeIII Restriction Enzyme Positive Control Salmon DNA Nuclease Free Water	Not applicable. Not applicable. Not classified. Not applicable. Not applicable. Not applicable. EYE IRRITATION - Category 2B EYE IRRITATION - Category 2B EYE IRRITATION - Category 2B Not applicable. Not applicable.
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Composition/information on ingredients

Name	%	Classification
<input checked="" type="checkbox"/> PCR Master Mix		
Glycerol	≤3	EYE IRRITATION - Category 2B
60 mM EDTA		
Edetic acid	≤3	EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
10X DdeI Buffer		
Sodium chloride	<10	EYE IRRITATION - Category 2A
10X NlaIII/HaeIII Buffer		
potassium acetate	≤10	COMBUSTIBLE DUSTS
[2-Hydroxy-1,1-bis(hydroxymethyl)ethyl]ammonium acetate	≤5	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
100X BSA		
		EYE IRRITATION - Category 2B

Section 15. Regulatory information

Glycerol	<10	
10X Ddel Restriction Enzyme Glycerol	≥50 - ≤75	EYE IRRITATION - Category 2B
10X NlaIII Restriction Enzyme Glycerol	≥50 - ≤75	EYE IRRITATION - Category 2B
Potassium chloride	≤3	EYE IRRITATION - Category 2B
10X HaeIII Restriction Enzyme Glycerol	≥50 - ≤75	EYE IRRITATION - Category 2B

State regulations

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

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

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 (CSCL)**: Not determined.
Japan inventory (ISHL): Not determined.
- New Zealand** : Not determined.
- Philippines** : Not determined.
- Republic of Korea** : Not determined.
- Taiwan** : All components are listed or exempted.
- Thailand** : Not determined.
- Turkey** : Not determined.
- United States** : All components are active or exempted.
- Viet Nam** : Not determined.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
60 mM EDTA SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method
10X Ddel Buffer AQUATIC HAZARD (LONG-TERM) - Category 3	Calculation method
10X Ddel Restriction Enzyme EYE IRRITATION - Category 2B	Calculation method
10X NlaIII Restriction Enzyme EYE IRRITATION - Category 2B	Calculation method
10X HaeIII Restriction Enzyme EYE IRRITATION - Category 2B	Calculation method

History

Date of issue : 03/27/2022
Date of previous issue : 07/29/2019
Version : 5

Key to abbreviations

: 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)
 : N/A = Not available
 : UN = United Nations

▣ Indicates information that has changed from previously issued version.

Notice to reader

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