

# SAFETY DATA SHEET



SureGuide Cas9 Nuclease and Buffer - 100 Reactions, Part Number 5190-7717

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

### 1.1 Product identifier

**Product name** : SureGuide Cas9 Nuclease and Buffer - 100 Reactions, Part Number 5190-7717

**UK (GB) REACH Registration number**

Registration number	Legal entity
<p><b>RNase Free Water</b> Exempt from REACH: According to the provisions of Article 2(7)(a) and Annex IV of REACH</p>	-

**CAS number** :  RNase Free Water 7732-18-5  
 10X Cas9 Digestion Buffer Not applicable.  
 Cas9 Nuclease Not applicable.

**Part no. (chemical kit)** : 5190-7717

**Part no.** :  RNase Free Water 740000-42  
 10X Cas9 Digestion Buffer 5190-7540  
 Cas9 Nuclease 5190-7541

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

**Identified uses** :  Analytical reagent.  
 RNase Free Water 2 x 1.5 ml  
 10X Cas9 Digestion Buffer 0.2 ml  
 Cas9 Nuclease 0.1 ml (100 reactions)

**Uses advised against** : None known.

### 1.3 Details of the supplier of the safety data sheet

Agilent Technologies LDA UK Ltd.  
 5500 Lakeside Cheadle Royal Business Park,  
 Cheadle, Cheshire, SK8 3GR  
 United Kingdom  
 Tel: +44 (0) 345 712 5292  
**e-mail address of person responsible for this SDS** : pdl-msds\_author@agilent.com

### 1.4 Emergency telephone number

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

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** :  RNase Free Water Mono-constituent substance  
 10X Cas9 Digestion Buffer Mixture  
 Buffer  
 Cas9 Nuclease Mixture

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

**Cas9 Nuclease**  
 H317 SKIN SENSITISATION Category 1

## SECTION 2: Hazards identification

<p><b>N</b>ase Free Water</p> <p>10X Cas9 Digestion Buffer</p> <p>Cas9 Nuclease</p>	<p>The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.</p> <p>The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.</p> <p>The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.</p>
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<p><b>Ingredients of unknown toxicity</b></p>	<p>: <b>N</b>10X Cas9 Digestion Buffer Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%</p> <p>Cas9 Nuclease Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%</p> <p>Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60%</p>
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<p><b>Ingredients of unknown ecotoxicity</b></p>	<p>: <b>N</b>10X Cas9 Digestion Buffer Contains 3% of components with unknown hazards to the aquatic environment</p>
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See Section 16 for the full text of the H statements declared above.

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

### 2.2 Label elements

<p><b>Hazard pictograms</b></p>	<p>: <b>N</b>Cas9 Nuclease</p>	
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<p><b>Signal word</b></p>	<p>: <b>N</b>Nase Free Water No signal word.</p> <p>10X Cas9 Digestion Buffer No signal word.</p> <p>Buffer</p> <p>Cas9 Nuclease Warning</p>
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<p><b>Hazard statements</b></p>	<p>: <b>N</b>Nase Free Water No known significant effects or critical hazards.</p> <p>10X Cas9 Digestion Buffer No known significant effects or critical hazards.</p> <p>Buffer</p> <p>Cas9 Nuclease H317 - May cause an allergic skin reaction.</p>
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### Precautionary statements

<p><b>Prevention</b></p>	<p>: <b>N</b>Nase Free Water Not applicable.</p> <p>10X Cas9 Digestion Buffer Not applicable.</p> <p>Buffer</p> <p>Cas9 Nuclease P280 - Wear protective gloves.</p> <p>P261 - Avoid breathing vapour.</p>
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<p><b>Response</b></p>	<p>: <b>N</b>Nase Free Water Not applicable.</p> <p>10X Cas9 Digestion Buffer Not applicable.</p> <p>Buffer</p> <p>Cas9 Nuclease P362 + P364 - Take off contaminated clothing and wash it before reuse.</p> <p>P302 + P352 - IF ON SKIN: Wash with plenty of water.</p> <p>P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.</p>
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<p><b>Storage</b></p>	<p>: <b>N</b>Nase Free Water Not applicable.</p> <p>10X Cas9 Digestion Buffer Not applicable.</p> <p>Buffer</p> <p>Cas9 Nuclease Not applicable.</p>
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<p><b>Disposal</b></p>	<p>: <b>N</b>Nase Free Water Not applicable.</p> <p>10X Cas9 Digestion Buffer Not applicable.</p> <p>Buffer</p> <p>Cas9 Nuclease P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.</p>
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<p><b>Hazardous ingredients</b></p>	<p>: <b>N</b>Cas9 Nuclease 2-mercaptoethanol</p>
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## SECTION 2: Hazards identification

<b>Supplemental label elements</b>	: <input checked="" type="checkbox"/> RNase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	Not applicable. Contains 2,4,7,9-Tetramethyldec-5-yne-4,7-diol, ethoxylated. May produce an allergic reaction. Safety data sheet available on request. Not applicable.
<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b>	: <input checked="" type="checkbox"/> RNase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	Not applicable. Not applicable. Not applicable.
<b>Special packaging requirements</b>		
<b>Containers to be fitted with child-resistant fastenings</b>	: <input checked="" type="checkbox"/> RNase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	Not applicable. Not applicable. Not applicable.
<b>Tactile warning of danger</b>	: <input checked="" type="checkbox"/> RNase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	Not applicable. Not applicable. Not applicable.

### 2.3 Other hazards

<b>Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII</b>	:	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">PBT</th> <th style="width: 15%;">P</th> <th style="width: 15%;">B</th> <th style="width: 15%;">T</th> <th style="width: 15%;">vPvB</th> <th style="width: 15%;">vP</th> <th style="width: 15%;">vB</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/> RNase Free Water Not applicable (Inorganic)</td> <td style="text-align: center;">N/A</td> <td style="text-align: center;">N/A</td> <td style="text-align: center;">N/A</td> <td style="text-align: center;">Not applicable (Inorganic)</td> <td style="text-align: center;">N/A</td> <td style="text-align: center;">N/A</td> </tr> </tbody> </table>	PBT	P	B	T	vPvB	vP	vB	<input checked="" type="checkbox"/> RNase Free Water Not applicable (Inorganic)	N/A	N/A	N/A	Not applicable (Inorganic)	N/A	N/A
PBT	P	B	T	vPvB	vP	vB										
<input checked="" type="checkbox"/> RNase Free Water Not applicable (Inorganic)	N/A	N/A	N/A	Not applicable (Inorganic)	N/A	N/A										
<b>Other hazards which do not result in classification</b>	:	<table border="0"> <tr> <td style="vertical-align: top;"><input checked="" type="checkbox"/> RNase Free Water</td> <td style="vertical-align: top;">None known.</td> </tr> <tr> <td style="vertical-align: top;">10X Cas9 Digestion Buffer</td> <td style="vertical-align: top;">None known.</td> </tr> <tr> <td style="vertical-align: top;">Cas9 Nuclease</td> <td style="vertical-align: top;">None known.</td> </tr> </table>	<input checked="" type="checkbox"/> RNase Free Water	None known.	10X Cas9 Digestion Buffer	None known.	Cas9 Nuclease	None known.								
<input checked="" type="checkbox"/> RNase Free Water	None known.															
10X Cas9 Digestion Buffer	None known.															
Cas9 Nuclease	None known.															

## SECTION 3: Composition/information on ingredients

<b>3.1 Substances</b>	:	<input checked="" type="checkbox"/> RNase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	Mono-constituent substance Mixture Mixture
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Product/ingredient name	Identifiers	%	Classification	Type
<input checked="" type="checkbox"/> RNase Free Water water	UK (GB) REACH #: Annex IV REACH #: Annex IV EC: 231-791-2 CAS: 7732-18-5	100	Not classified.	[1]
<b>Cas9 Nuclease</b> Glycerol	UK (GB) REACH #: Annex V REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified.	[2]
2-Mercaptoethanol	EC: 200-464-6 CAS: 60-24-2	≤0.3	Acute Tox. 3, H301 Acute Tox. 2, H310 Acute Tox. 3, H331 Skin Irrit. 2, H315 Eye Dam. 1, H318	[1]

**SECTION 3: Composition/information on ingredients**

Poly(oxy-1,2-ethanediyl), .alpha.-[ (1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	CAS: 9036-19-5	<0.1	Skin Sens. 1A, H317 Repr. 2, H361f STOT RE 2, H373 (heart, liver) Aquatic Acute 1, H400 (M=1) Aquatic Chronic 2, H411 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1) <b>See Section 16 for the full text of the H statements declared above.</b>	[1] [3]
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There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

<u>Type</u>	
<input checked="" type="checkbox"/> Nose Free Water	[1] Constituent
Cas9 Nuclease	[1] Substance classified with a health or environmental hazard
	[2] Substance with a workplace exposure limit
	[3] Substance of equivalent concern



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

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**




<b>Eye contact</b>	: <input checked="" type="checkbox"/> Nose 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.
	10X Cas9 Digestion 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.
	Cas9 Nuclease	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.
<b>Inhalation</b>	: <input checked="" type="checkbox"/> Nose Free Water	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	10X Cas9 Digestion 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.
	Cas9 Nuclease	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.

## SECTION 4: First aid measures

<b>Skin contact</b>	:  Nose Free Water	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	10X Cas9 Digestion Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Cas9 Nuclease	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
<b>Ingestion</b>	:  Nose 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.
	10X Cas9 Digestion 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.
	Cas9 Nuclease	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.
<b>Protection of first-aiders</b>	:  Nose Free Water	No action shall be taken involving any personal risk or without suitable training.
	10X Cas9 Digestion Buffer	No action shall be taken involving any personal risk or without suitable training.
	Cas9 Nuclease	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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

#### Over-exposure signs/symptoms

<b>Eye contact</b>	:  Nose Free Water	No specific data.
	10X Cas9 Digestion Buffer	No specific data.
	Cas9 Nuclease	No specific data.
<b>Inhalation</b>	:  Nose Free Water	No specific data.
	10X Cas9 Digestion Buffer	No specific data.
	Cas9 Nuclease	No specific data.
<b>Skin contact</b>	:  Nose Free Water	No specific data.
	10X Cas9 Digestion Buffer	No specific data.
	Cas9 Nuclease	Adverse symptoms may include the following: irritation redness

## SECTION 4: First aid measures

<b>Ingestion</b>	:	☑Nase Free Water	No specific data.
		10X Cas9 Digestion Buffer	No specific data.
		Cas9 Nuclease	No specific data.

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

<b>Notes to physician</b>	:	☑Nase Free Water	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		10X Cas9 Digestion 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.
		Cas9 Nuclease	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	:	☑Nase Free Water	No specific treatment.
		10X Cas9 Digestion Buffer	No specific treatment.
		Cas9 Nuclease	No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	:	☑Nase Free Water	Use an extinguishing agent suitable for the surrounding fire.
		10X Cas9 Digestion Buffer	Use an extinguishing agent suitable for the surrounding fire.
		Cas9 Nuclease	Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	:	☑Nase Free Water	None known.
		10X Cas9 Digestion Buffer	None known.
		Cas9 Nuclease	None known.


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

<b>Hazards from the substance or mixture</b>	:	☑Nase Free Water	In a fire or if heated, a pressure increase will occur and the container may burst.
		10X Cas9 Digestion Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
		Cas9 Nuclease	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous combustion products</b>	:	☑Nase Free Water	No specific data.
		10X Cas9 Digestion Buffer	Decomposition products may include the following materials:  carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
		Cas9 Nuclease	Decomposition products may include the following materials:  carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides

### 5.3 Advice for firefighters



<b>Special protective actions for fire-fighters</b>	:	☑Nase 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.
		10X Cas9 Digestion Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
		Cas9 Nuclease	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

## SECTION 5: Firefighting measures

<b>Special protective equipment for fire-fighters</b>	:  Nase 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.
	10X Cas9 Digestion Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Cas9 Nuclease	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

<b>For non-emergency personnel</b>	:  Nase Free Water	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	10X Cas9 Digestion Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	Cas9 Nuclease	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	:  Nase Free Water	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	10X Cas9 Digestion Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Cas9 Nuclease	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
<b>6.2 Environmental precautions</b>	:  Nase Free Water	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	10X Cas9 Digestion Buffer	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	Cas9 Nuclease	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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

## SECTION 6: Accidental release measures

<b>Methods for cleaning up</b>	: <input checked="" type="checkbox"/> Nose 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.
	10X Cas9 Digestion Buffer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
	Cas9 Nuclease	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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


## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling



<b>Protective measures</b>	: <input checked="" type="checkbox"/> Nose Free Water	Put on appropriate personal protective equipment (see Section 8).
	10X Cas9 Digestion Buffer	Put on appropriate personal protective equipment (see Section 8).
	Cas9 Nuclease	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
<b>Advice on general occupational hygiene</b>	: <input checked="" type="checkbox"/> Nose 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.
	10X Cas9 Digestion 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.
	Cas9 Nuclease	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

## SECTION 7: Handling and storage

<b>Storage</b>	:  Nase Free Water	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
	10X Cas9 Digestion Buffer	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
	Cas9 Nuclease	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.


### 7.3 Specific end use(s)

<b>Recommendations</b>	:  Nase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
<b>Industrial sector specific solutions</b>	:  Nase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	Not available. Not available. Not available.

## SECTION 8: Exposure controls/personal protection


### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
 Cas9 Nuclease Glycerol	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Mist

#### Biological exposure indices

No exposure indices known.

**Recommended monitoring procedures** : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### DNELs/DMELs

## SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Exposure	Value	Population	Effects
Cas9 Nuclease 2-Mercaptoethanol	DNEL	Short term Oral	0.025 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Oral	0.025 mg/ kg bw/day	General population	Systemic
	DNEL	Short term Dermal	0.05 mg/ kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0.05 mg/ kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	0.17 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	0.17 mg/m <sup>3</sup>	Workers	Systemic

### PNECs

No PNECs available

### 8.2 Exposure controls

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

#### Individual protection measures

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

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

#### Skin protection

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

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

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

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

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

**SECTION 9: Physical and chemical properties**

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

**9.1 Information on basic physical and chemical properties**

**Appearance**

<b>Physical state</b>	: <input checked="" type="checkbox"/> Nase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	Liquid. Liquid. Liquid.
<b>Colour</b>	: <input checked="" type="checkbox"/> Nase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	Colourless. Not available. Not available.
<b>Odour</b>	: <input checked="" type="checkbox"/> Nase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	Odourless. Not available. Not available.
<b>Odour threshold</b>	: <input checked="" type="checkbox"/> Nase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	Not available. Not available. Not available.
<b>Melting point/freezing point</b>	: <input checked="" type="checkbox"/> Nase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	0°C Not available. Not available.
<b>Initial boiling point and boiling range</b>	: <input checked="" type="checkbox"/> Nase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	100°C Not available. Not available.
<b>Flammability</b>	: <input checked="" type="checkbox"/> Nase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	Not applicable. Not applicable. Not applicable.
<b>Upper/lower flammability or explosive limits</b>	: <input checked="" type="checkbox"/> Nase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	Not available. Not available. Not available.

<b>Flash point</b>	:		<b>Closed cup</b>		<b>Open cup</b>	
	<b>Ingredient name</b>	°C	Method		°C	Method
	<input checked="" type="checkbox"/> Cas9 Nuclease glycerol	-	-		177	-

<b>Auto-ignition temperature</b>	:	<b>Ingredient name</b>	°C	<b>Method</b>
	<input checked="" type="checkbox"/> Cas9 Nuclease glycerol		370	-

<b>Decomposition temperature</b>	: <input checked="" type="checkbox"/> Nase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	Not available. Not available. Not available.
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<b>pH</b>	: <input checked="" type="checkbox"/> Nase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	7 7 7
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<b>Viscosity</b>	: <input checked="" type="checkbox"/> Nase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	Not available. Not available. Not available.
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## SECTION 9: Physical and chemical properties

Solubility(ies)	Media	Result
	RNase Free Water water 10X Cas9 Digestion Buffer water Cas9 Nuclease water	Soluble  Soluble  Soluble

Partition coefficient: n-octanol/water	Media	Value
	RNase Free Water	-1.38
	10X Cas9 Digestion Buffer	Not applicable.
	Cas9 Nuclease	Not applicable.

Vapour pressure	Media	Value
	RNase Free Water	2.3 kPa (17.5 mm Hg) [room temperature] 12.3 kPa (92.258 mm Hg) [50°C]

Ingredient name	Vapour Pressure at 20° C			Vapour pressure at 50° C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
RNase Free Water water 10X Cas9 Digestion Buffer water Cas9 Nuclease water glycerol	- 17.5 - 17.5 0.000075	- 2.3 - 2.3 0.00001	- - - - -	- 92.258 - 92.258 0.0025	- 12.3 - 12.3 0.00033	- - - - -

Evaporation rate	Media	Value
	RNase Free Water	Not available.
	10X Cas9 Digestion Buffer	Not available.
	Cas9 Nuclease	Not available.

Relative density	Media	Value
	RNase Free Water	1
	10X Cas9 Digestion Buffer	Not available.
	Cas9 Nuclease	Not available.

Vapour density	Media	Value
	RNase Free Water	0.62 [Air = 1]
	10X Cas9 Digestion Buffer	Not available.
	Cas9 Nuclease	Not available.

Explosive properties	Media	Value
	RNase Free Water	Not available.
	10X Cas9 Digestion Buffer	Not available.
	Cas9 Nuclease	Not available.

Oxidising properties	Media	Value
	RNase Free Water	Not available.
	10X Cas9 Digestion Buffer	Not available.
	Cas9 Nuclease	Not available.

### Particle characteristics

Median particle size	Media	Value
	RNase Free Water	Not applicable.
	10X Cas9 Digestion Buffer	Not applicable.
	Cas9 Nuclease	Not applicable.

### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	: <input checked="" type="checkbox"/> Nase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: <input checked="" type="checkbox"/> Nase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	The product is stable. The product is stable. The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: <input checked="" type="checkbox"/> Nase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: <input checked="" type="checkbox"/> Nase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	No specific data. No specific data. No specific data.
<b>10.5 Incompatible materials</b>	: <input checked="" type="checkbox"/> Nase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
<b>10.6 Hazardous decomposition products</b>	: <input checked="" type="checkbox"/> Nase Free Water 10X Cas9 Digestion Buffer Cas9 Nuclease	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<input checked="" type="checkbox"/> Cas9 Nuclease				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
2-Mercaptoethanol	LD50 Oral	Rat	244 mg/kg	-
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	LD50 Oral	Rat	2800 mg/kg	-

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)

## SECTION 11: Toxicological information

Product/ingredient name	LD50 (mg/kg)	LD50 (g/kg)	LD50 (g/kg)	LD50 (g/kg)	LD50 (g/kg)
<input checked="" type="checkbox"/> Cas9 Nuclease	152500.0	125000	N/A	871.1	N/A
Cas9 Nuclease	12600	N/A	N/A	N/A	N/A
Glycerol	244	200	N/A	3	N/A
2-Mercaptoethanol	500	N/A	N/A	N/A	N/A
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-					

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<input checked="" type="checkbox"/> Cas9 Nuclease					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
2-Mercaptoethanol	Eyes - Severe irritant	Rabbit	-	2 mg	-
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	Eyes - Severe irritant	Rabbit	-	1 %	-

### Sensitiser

**Conclusion/Summary** : 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)

Not available.

### Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
<input checked="" type="checkbox"/> Cas9 Nuclease			
2-Mercaptoethanol	Category 2	-	heart, liver

### Aspiration hazard

Not available.

**Information on likely routes of exposure** :  Nose Free Water : Not available.  
 10X Cas9 Digestion Buffer : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.  
 Cas9 Nuclease : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

### Potential acute health effects

**Inhalation** :  Nose Free Water : No known significant effects or critical hazards.  
 10X Cas9 Digestion Buffer : No known significant effects or critical hazards.  
 Cas9 Nuclease : No known significant effects or critical hazards.

**Ingestion** :  Nose Free Water : No known significant effects or critical hazards.  
 10X Cas9 Digestion Buffer : No known significant effects or critical hazards.  
 Cas9 Nuclease : No known significant effects or critical hazards.

**Skin contact** :  Nose Free Water : No known significant effects or critical hazards.  
 10X Cas9 Digestion Buffer : No known significant effects or critical hazards.  
 Cas9 Nuclease : May cause an allergic skin reaction.

## SECTION 11: Toxicological information

<b>Eye contact</b>	: <input checked="" type="checkbox"/> Nase Free Water	No known significant effects or critical hazards.
	10X Cas9 Digestion Buffer	No known significant effects or critical hazards.
	Cas9 Nuclease	No known significant effects or critical hazards.

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

<b>Inhalation</b>	: <input checked="" type="checkbox"/> Nase Free Water	No specific data.
	10X Cas9 Digestion Buffer	No specific data.
	Cas9 Nuclease	No specific data.
<b>Ingestion</b>	: <input checked="" type="checkbox"/> Nase Free Water	No specific data.
	10X Cas9 Digestion Buffer	No specific data.
	Cas9 Nuclease	No specific data.
<b>Skin contact</b>	: <input checked="" type="checkbox"/> Nase Free Water	No specific data.
	10X Cas9 Digestion Buffer	No specific data.
	Cas9 Nuclease	Adverse symptoms may include the following: irritation redness
<b>Eye contact</b>	: <input checked="" type="checkbox"/> Nase Free Water	No specific data.
	10X Cas9 Digestion Buffer	No specific data.
	Cas9 Nuclease	No specific data.

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

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

**Conclusion/Summary** : Not available.

<b>General</b>	: <input checked="" type="checkbox"/> Nase Free Water	No known significant effects or critical hazards.
	10X Cas9 Digestion Buffer	No known significant effects or critical hazards.
	Cas9 Nuclease	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
<b>Carcinogenicity</b>	: <input checked="" type="checkbox"/> Nase Free Water	No known significant effects or critical hazards.
	10X Cas9 Digestion Buffer	No known significant effects or critical hazards.
	Cas9 Nuclease	No known significant effects or critical hazards.
<b>Mutagenicity</b>	: <input checked="" type="checkbox"/> Nase Free Water	No known significant effects or critical hazards.
	10X Cas9 Digestion Buffer	No known significant effects or critical hazards.
	Cas9 Nuclease	No known significant effects or critical hazards.
<b>Reproductive toxicity</b>	: <input checked="" type="checkbox"/> Nase Free Water	No known significant effects or critical hazards.
	10X Cas9 Digestion Buffer	No known significant effects or critical hazards.
	Cas9 Nuclease	No known significant effects or critical hazards.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
<b>Cas9 Nuclease</b> Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Trout - <i>Oncorhynchus mykiss</i>	96 hours
2-Mercaptoethanol Poly(oxy-1,2-ethanediyl), . alpha.-[ (1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	Acute EC50 0.4 mg/l Fresh water	Daphnia	48 hours
	Acute EC50 210 µg/l Fresh water	Algae - Green algae - <i>Selenastrum sp.</i>	96 hours
	Acute LC50 10800 µg/l Marine water	Crustaceans - Aesop shrimp - <i>Pandalus montagui</i> - Adult	48 hours
	Acute LC50 2.518 mg/l Fresh water	Daphnia - Water flea - <i>Daphnia magna</i>	48 hours
	Acute LC50 7200 µg/l Fresh water	Fish - Rainbow trout,donaldson trout - <i>Oncorhynchus mykiss</i>	96 hours

**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
<b>Cas9 Nuclease</b> Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
2-Mercaptoethanol	OECD 310 Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)	69 % - Not readily - 60 days	20 mg/l	-

**Conclusion/Summary** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>RNase Free Water</b> water	-	-	Readily
<b>Cas9 Nuclease</b> 2-Mercaptoethanol	-	-	Not readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>RNase Free Water</b> water	-1.38	-	Low
<b>Cas9 Nuclease</b> Glycerol 2-Mercaptoethanol Poly(oxy-1,2-ethanediyl), . alpha.-[ (1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	-1.76	-	Low
	-0.056	-	Low
	2.7	78.67	Low

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

## SECTION 12: Ecological information

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
<b>RN</b> ase Free Water water	Not applicable (Inorganic)	N/A	N/A	N/A	Not applicable (Inorganic)	N/A	N/A

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

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

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

**Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

#### Packaging

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

**Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

	ADR/RID	IMDG	IATA
<b>14.1 UN number</b>	Not regulated.	Not regulated.	Not regulated.
<b>14.2 UN proper shipping name</b>	-	-	-
<b>14.3 Transport hazard class(es)</b>	-	-	-
<b>14.4 Packing group</b>	-	-	-
<b>14.5 Environmental hazards</b>	No.	No.	No.

### Additional information

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

## SECTION 14: Transport information

14.7 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

### UK (GB)/REACH

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

##### Annex XIV

None of the components are listed.

##### Substances of very high concern

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
<input checked="" type="checkbox"/> <b>Cas9 Nuclease</b> Substance of equivalent concern for environment	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated covering well-defined substances and UVCB substances, polymers and homologues	Candidate	-	12/19/2012

##### Ozone depleting substances

Not listed.

##### Prior Informed Consent (PIC)

Not listed.

##### Persistent Organic Pollutants

Not listed.

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

Product / Ingredient name	Identifiers	Status
<input checked="" type="checkbox"/> <b>Cas9 Nuclease</b> Cas9 Nuclease		3

**Label** :  **N**ase Free Water : Not applicable.  
 10X Cas9 Digestion Buffer : Not applicable.  
 Cas9 Nuclease : Not applicable.

##### Seveso Directive

This product is not controlled under the Seveso Directive.

##### EU regulations

**Industrial emissions (integrated pollution prevention and control) - Air** : Not listed

**Industrial emissions (integrated pollution prevention and control) - Water** : Not listed

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

##### International regulations

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

Not listed.

##### Montreal Protocol

Not listed.

## SECTION 15: Regulatory information

### 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

**United States** : All components are active or exempted.

## SECTION 16: Other information

✓ Indicates information that has changed from previously issued version.

### **Abbreviations and acronyms**

✓ : ATE = Acute Toxicity Estimate  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 DMEL = Derived Minimal Effect Level  
 DNEL = Derived No Effect Level  
 EUH statement = CLP-specific Hazard statement  
 N/A = Not available  
 PBT = Persistent, Bioaccumulative and Toxic  
 PNEC = Predicted No Effect Concentration  
 RRN = REACH Registration Number  
 vPvB = Very Persistent and Very Bioaccumulative

### Procedure used to derive the classification

Classification	Justification
✓ <b>Cas9 Nuclease</b> Skin Sens. 1, H317	Calculation method

### Full text of abbreviated H statements

✓ <b>Cas9 Nuclease</b> H301 Toxic if swallowed. H302 Harmful if swallowed. H310 Fatal in contact with skin. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H331 Toxic if inhaled. H361f Suspected of damaging fertility. H373 May cause damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects.	
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### Full text of classifications

✓ <b>Cas9 Nuclease</b> Acute Tox. 2 ACUTE TOXICITY - Category 2 Acute Tox. 3 ACUTE TOXICITY - Category 3 Acute Tox. 4 ACUTE TOXICITY - Category 4 Aquatic Acute 1 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 Aquatic Chronic 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 Aquatic Chronic 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 Eye Dam. 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 Repr. 2 REPRODUCTIVE TOXICITY - Category 2 Skin Irrit. 2 SKIN CORROSION/IRRITATION - Category 2 Skin Sens. 1 SKIN SENSITISATION - Category 1 Skin Sens. 1A SKIN SENSITISATION - Category 1A STOT RE 2 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2	
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**Date of issue/ Date of revision** : 29/02/2024

## SECTION 16: Other information

Date of previous issue : 26/02/2021

Version : 4

### Notice to reader

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