

SAFETY DATA SHEET

SureSelect Enzymatic Fragmentation Kit, 96 Reactions, Automation, Part Number 5191-6764

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

1.1 Product identifier

Product name	: SureSelect Enzymatic Fragmentation Kit, 96 Reactions, Automation, Part Number 5191-6764
Part no. (chemical kit)	: 5191-6764
Part no.	: 5X SureSelect 5191-4077
	Fragmentation Buffer
	SureSelect 5191-6763
	Fragmentation Enzyme

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

Identified uses	: Analytical reagent. For research use only.	
	5X SureSelect Fragmentation Buffer	0.310 ml (96 reactions)
	SureSelect Fragmentation Enzyme	0.155 ml (96 reactions)
Uses advised against	: Not for use in diagnostic procedures.	

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Deutschland GmbH
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

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	: 5X SureSelect Mixture
	Fragmentation Buffer
	SureSelect Mixture
	Fragmentation Enzyme

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

Not classified.

5X SureSelect Fragmentation Buffer	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
SureSelect Fragmentation Enzyme	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Ingredients of unknown toxicity	: 5X SureSelect Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%
	Fragmentation Buffer Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
	SureSelect Fragmentation Enzyme Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60%

Ingredients of unknown ecotoxicity :

See Section 16 for the full text of the H statements declared above.

SECTION 2: Hazards identification

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

2.2 Label elements

Signal word	: 5X SureSelect Fragmentation Buffer SureSelect Fragmentation Enzyme	No signal word. No signal word.
Hazard statements	: 5X SureSelect Fragmentation Buffer SureSelect Fragmentation Enzyme	No known significant effects or critical hazards. No known significant effects or critical hazards.

Precautionary statements

Prevention	: 5X SureSelect Fragmentation Buffer SureSelect Fragmentation Enzyme	Not applicable. Not applicable.
Response	: 5X SureSelect Fragmentation Buffer SureSelect Fragmentation Enzyme	Not applicable. Not applicable.
Storage	: 5X SureSelect Fragmentation Buffer SureSelect Fragmentation Enzyme	Not applicable. Not applicable.
Disposal	: 5X SureSelect Fragmentation Buffer SureSelect Fragmentation Enzyme	Not applicable. Not applicable.
Supplemental label elements	: 5X SureSelect Fragmentation Buffer SureSelect Fragmentation Enzyme	Safety data sheet available on request. Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: 5X SureSelect Fragmentation Buffer SureSelect Fragmentation Enzyme	Not applicable. Not applicable.

Special packaging requirements

Tactile warning of danger	: 5X SureSelect Fragmentation Buffer SureSelect Fragmentation Enzyme	Not applicable. Not applicable.
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2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	: 5X SureSelect Fragmentation Buffer SureSelect Fragmentation Enzyme	This mixture does not contain any substances that are assessed to be a PBT or a vPvB. This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification	: 5X SureSelect Fragmentation Buffer SureSelect Fragmentation Enzyme	None known. None known.

SECTION 3: Composition/information on ingredients

3.1 Substances

: 5X SureSelect Fragmentation Buffer

Mixture

SureSelect Fragmentation Enzyme

Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
5X SureSelect Fragmentation Buffer					
caesium chloride	EC: 231-600-2 CAS: 7647-17-8	<2.5	Repr. 2, H361f (Male) (oral) Aquatic Chronic 2, H411	-	[1]
SureSelect Fragmentation Enzyme					
glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified. See Section 16 for the full text of the H statements declared above.	-	[1]

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.

Type

5X SureSelect Fragmentation Buffer

[1] Substance classified with a health or environmental hazard

SureSelect Fragmentation Enzyme

[1] Substance with a workplace exposure limit

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	<div>: 5X SureSelect Fragmentation Buffer</div> <div>SureSelect Fragmentation Enzyme</div>	<div>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.</div> <div>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.</div>
Inhalation	<div>: 5X SureSelect Fragmentation Buffer</div> <div>SureSelect Fragmentation Enzyme</div>	<div>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</div> <div>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</div>
Skin contact	<div>: 5X SureSelect Fragmentation Buffer</div> <div>SureSelect Fragmentation Enzyme</div>	<div>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</div> <div>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</div>
Ingestion	<div>: 5X SureSelect Fragmentation Buffer</div> <div>SureSelect Fragmentation Enzyme</div>	<div>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.</div> <div>Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities</div>

SECTION 4: First aid measures

Protection of first-aiders : 5X SureSelect
Fragmentation Buffer
SureSelect
Fragmentation Enzyme

of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

No action shall be taken involving any personal risk or without suitable training.
No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed**Potential acute health effects**

Eye contact : 5X SureSelect
Fragmentation Buffer
SureSelect
Fragmentation Enzyme

No known significant effects or critical hazards.

No known significant effects or critical hazards.

Inhalation : 5X SureSelect
Fragmentation Buffer
SureSelect
Fragmentation Enzyme

No known significant effects or critical hazards.

No known significant effects or critical hazards.

Skin contact : 5X SureSelect
Fragmentation Buffer
SureSelect
Fragmentation Enzyme

No known significant effects or critical hazards.

No known significant effects or critical hazards.

Ingestion : 5X SureSelect
Fragmentation Buffer
SureSelect
Fragmentation Enzyme

No known significant effects or critical hazards.

No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : 5X SureSelect
Fragmentation Buffer
SureSelect
Fragmentation Enzyme

No specific data.

No specific data.

Inhalation : 5X SureSelect
Fragmentation Buffer
SureSelect
Fragmentation Enzyme

No specific data.

No specific data.

Skin contact : 5X SureSelect
Fragmentation Buffer
SureSelect
Fragmentation Enzyme

No specific data.

No specific data.

Ingestion : 5X SureSelect
Fragmentation Buffer
SureSelect
Fragmentation Enzyme

No specific data.

No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : 5X SureSelect
Fragmentation Buffer
SureSelect
Fragmentation Enzyme

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

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

Specific treatments : 5X SureSelect
Fragmentation Buffer
SureSelect
Fragmentation Enzyme

No specific treatment.

No specific treatment.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media	5X SureSelect Fragmentation Buffer	Use an extinguishing agent suitable for the surrounding fire.
	SureSelect Fragmentation Enzyme	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	5X SureSelect	None known.
	Fragmentation Buffer SureSelect Fragmentation Enzyme	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	5X SureSelect Fragmentation Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureSelect Fragmentation Enzyme	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	5X SureSelect Fragmentation Buffer	Decomposition products may include the following materials: halogenated compounds metal oxide/oxides
	SureSelect Fragmentation Enzyme	Decomposition products may include the following materials: carbon dioxide carbon monoxide

5.3 Advice for firefighters

Special precautions for fire-fighters	5X SureSelect Fragmentation 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.
	SureSelect Fragmentation Enzyme	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	5X SureSelect Fragmentation Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	SureSelect Fragmentation Enzyme	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel	5X SureSelect Fragmentation 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.
	SureSelect Fragmentation Enzyme	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.

SECTION 6: Accidental release measures

For emergency responders	: 5X SureSelect Fragmentation 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".
	SureSelect Fragmentation Enzyme	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".
6.2 Environmental precautions	: 5X SureSelect Fragmentation 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).
	SureSelect Fragmentation Enzyme	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		
Methods for cleaning up	: 5X SureSelect Fragmentation 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.
	SureSelect Fragmentation 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.
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**

Protective measures	: 5X SureSelect Fragmentation Buffer	Put on appropriate personal protective equipment (see Section 8).
	SureSelect Fragmentation Enzyme	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: 5X SureSelect Fragmentation 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.
	SureSelect Fragmentation 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.

7.2 Conditions for safe storage, including any incompatibilities

SECTION 7: Handling and storage

Storage	: 5X SureSelect Fragmentation 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.
	SureSelect Fragmentation 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 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)

Recommendations	: 5X SureSelect Fragmentation Buffer	Industrial applications, Professional applications.
	SureSelect Fragmentation Enzyme	Industrial applications, Professional applications.
Industrial sector specific solutions	: 5X SureSelect Fragmentation Buffer	Not available.
	SureSelect Fragmentation Enzyme	Not available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Occupational exposure limits**

Product/ingredient name	Exposure limit values
SureSelect Fragmentation Enzyme Glycerol	NAOSH (Ireland, 5/2021). Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV-8hr: 10 mg/m ³ 8 hours. Form: mist

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures	: Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
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DNELs/DMELs

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Exposure	Value	Population	Effects
5X SureSelect Fragmentation Buffer Caesium chloride	DNEL	Long term Inhalation	1.47 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	4.18 mg/kg bw/day	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**

Physical state : 5X SureSelect Liquid.
Fragmentation Buffer
SureSelect Liquid.
Fragmentation Enzyme

Colour : 5X SureSelect Not available.
Fragmentation Buffer
SureSelect Not available.
Fragmentation Enzyme

SECTION 9: Physical and chemical properties

Odour : 5X SureSelect Not available.
 Fragmentation Buffer
 SureSelect Not available.
 Fragmentation Enzyme

Odour threshold : 5X SureSelect Not available.
 Fragmentation Buffer
 SureSelect Not available.
 Fragmentation Enzyme

Melting point/freezing point : 5X SureSelect Not available.
 Fragmentation Buffer
 SureSelect Not available.
 Fragmentation Enzyme

Initial boiling point and boiling range : 5X SureSelect Not available.
 Fragmentation Buffer
 SureSelect Not available.
 Fragmentation Enzyme

Flammability : 5X SureSelect Not applicable.
 Fragmentation Buffer
 SureSelect Not applicable.
 Fragmentation Enzyme

Upper/lower flammability or explosive limits : 5X SureSelect Not available.
 Fragmentation Buffer
 SureSelect Not available.
 Fragmentation Enzyme

Flash point :		Closed cup		Open cup	
	Ingredient name	°C	Method	°C	Method
	SureSelect Fragmentation Enzyme				
	Glycerol	-	-	177	-

Auto-ignition temperature :	Ingredient name	°C	Method
	5X SureSelect Fragmentation Buffer		
	Caesium chloride	>400	-
	SureSelect Fragmentation Enzyme		
	Glycerol	370	-

Decomposition temperature : 5X SureSelect Not available.
 Fragmentation Buffer
 SureSelect Not available.
 Fragmentation Enzyme

pH : 5X SureSelect 7.5
 Fragmentation Buffer
 SureSelect 7.5
 Fragmentation Enzyme

Viscosity : 5X SureSelect Not available.
 Fragmentation Buffer
 SureSelect Not available.
 Fragmentation Enzyme

Solubility(ies) :	Media	Result
	5X SureSelect Fragmentation Buffer	
	water	Soluble
	SureSelect Fragmentation Enzyme	
	water	Soluble

SECTION 9: Physical and chemical properties

Partition coefficient: n-octanol/water	5X SureSelect	Not applicable.					
	Fragmentation Buffer						
	SureSelect	Not applicable.					
	Fragmentation Enzyme						
Vapour pressure		Vapour Pressure at 20°C			Vapour pressure at 50°C		
	Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
	5X SureSelect Fragmentation Buffer						
	water	17.5	2.3	-	92.258	12.3	-
	SureSelect Fragmentation Enzyme						
	water	17.5	2.3	-	92.258	12.3	-
	Glycerol	0.000075	0.00001	-	0.0025	0.00033	-
	Evaporation rate	5X SureSelect	Not available.				
	Fragmentation Buffer						
	SureSelect	Not available.					
Fragmentation Enzyme							
Relative density	5X SureSelect	Not available.					
	Fragmentation Buffer						
Vapour density	SureSelect	Not available.					
	Fragmentation Enzyme						
Explosive properties	5X SureSelect	Not available.					
	Fragmentation Buffer						
Oxidising properties	SureSelect	Not available.					
	Fragmentation Enzyme						
Particle characteristics							
Median particle size	5X SureSelect	Not applicable.					
	Fragmentation Buffer						
	SureSelect	Not applicable.					
	Fragmentation Enzyme						

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	5X SureSelect	No specific test data related to reactivity available for this product or its ingredients.
	Fragmentation Buffer	
	SureSelect	No specific test data related to reactivity available for this product or its ingredients.
	Fragmentation Enzyme	

SECTION 10: Stability and reactivity

10.2 Chemical stability	5X SureSelect	The product is stable.
	Fragmentation Buffer	
	SureSelect	The product is stable.
	Fragmentation Enzyme	
10.3 Possibility of hazardous reactions	5X SureSelect	Under normal conditions of storage and use, hazardous reactions will not occur.
	Fragmentation Buffer	
	SureSelect	Under normal conditions of storage and use, hazardous reactions will not occur.
	Fragmentation Enzyme	
10.4 Conditions to avoid	5X SureSelect	No specific data.
	Fragmentation Buffer	
	SureSelect	No specific data.
	Fragmentation Enzyme	
10.5 Incompatible materials	5X SureSelect	May react or be incompatible with oxidising materials.
	Fragmentation Buffer	
	SureSelect	May react or be incompatible with oxidising materials.
	Fragmentation Enzyme	
10.6 Hazardous decomposition products	5X SureSelect	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Fragmentation Buffer	
	SureSelect	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Fragmentation Enzyme	

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
5X SureSelect Fragmentation Buffer Caesium chloride	LD50 Oral	Rat	2004 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)
5X SureSelect Fragmentation Buffer Caesium chloride	2004	N/A	N/A	N/A	N/A

Irritation/Corrosion

Conclusion/Summary : Not available.

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.

SECTION 11: Toxicological informationSpecific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure : 5X SureSelect Fragmentation Buffer Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
 SureSelect Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
 Fragmentation Enzyme

Potential acute health effects

Inhalation : 5X SureSelect No known significant effects or critical hazards.
 Fragmentation Buffer No known significant effects or critical hazards.
 SureSelect
 Fragmentation Enzyme

Ingestion : 5X SureSelect No known significant effects or critical hazards.
 Fragmentation Buffer No known significant effects or critical hazards.
 SureSelect
 Fragmentation Enzyme

Skin contact : 5X SureSelect No known significant effects or critical hazards.
 Fragmentation Buffer No known significant effects or critical hazards.
 SureSelect
 Fragmentation Enzyme

Eye contact : 5X SureSelect No known significant effects or critical hazards.
 Fragmentation Buffer No known significant effects or critical hazards.
 SureSelect
 Fragmentation Enzyme

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : 5X SureSelect No specific data.
 Fragmentation Buffer No specific data.
 SureSelect
 Fragmentation Enzyme

Ingestion : 5X SureSelect No specific data.
 Fragmentation Buffer No specific data.
 SureSelect
 Fragmentation Enzyme

Skin contact : 5X SureSelect No specific data.
 Fragmentation Buffer No specific data.
 SureSelect
 Fragmentation Enzyme

Eye contact : 5X SureSelect No specific data.
 Fragmentation Buffer No specific data.
 SureSelect
 Fragmentation Enzyme

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

SECTION 11: Toxicological information

General	: 5X SureSelect Fragmentation Buffer	No known significant effects or critical hazards.
	SureSelect	No known significant effects or critical hazards.
	Fragmentation Enzyme	
Carcinogenicity	: 5X SureSelect Fragmentation Buffer	No known significant effects or critical hazards.
	SureSelect	No known significant effects or critical hazards.
	Fragmentation Enzyme	
Mutagenicity	: 5X SureSelect Fragmentation Buffer	No known significant effects or critical hazards.
	SureSelect	No known significant effects or critical hazards.
	Fragmentation Enzyme	
Reproductive toxicity	: 5X SureSelect Fragmentation Buffer	No known significant effects or critical hazards.
	SureSelect	No known significant effects or critical hazards.
	Fragmentation Enzyme	

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
5X SureSelect Fragmentation Buffer Caesium chloride	Acute EC50 135000 µg/l Fresh water	Crustaceans - <i>Eudiaptomus padanus</i> ssp. <i>padanus</i> - Adult	48 hours
	Acute LC50 7400 µg/l Fresh water	Daphnia - <i>Daphnia hyalina</i> - Adult	48 hours

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

12.7 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
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	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.

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****EU Regulation (EC) No. 1907/2006 (REACH)****Annex XIV - List of substances subject to authorisation****Annex XIV**

None of the components are listed.

Substances of very high concern

None of the components are listed.

SECTION 15: Regulatory information

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

No listed substance

Label : 5X SureSelect Fragmentation Not applicable.
Buffer
SureSelect Fragmentation Not applicable.
Enzyme

Other EU regulations

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

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 : All components are listed or exempted.
Eurasian Economic Union : **Russian Federation inventory**: Not determined.
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.

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

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

Classification	Justification
Not classified.	

Full text of abbreviated H statements

5X SureSelect Fragmentation Buffer H361f H411	Suspected of damaging fertility. Toxic to aquatic life with long lasting effects.
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Full text of classifications [CLP/GHS]

5X SureSelect Fragmentation Buffer Aquatic Chronic 2 Repr. 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 REPRODUCTIVE TOXICITY - Category 2
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- Date of issue/ Date of revision** : 30/06/2023
- Date of previous issue** : No previous validation
- Version** : 1

Notice to reader

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