

# SAFETY DATA SHEET

SureSelect XT Master Mix Reagent Kit, Box 1, 96 Reactions, Part Number 5190-9385

## Section 1. Identification

### 1.1 Product identifier

**Product name** : SureSelect XT Master Mix Reagent Kit, Box 1, 96 Reactions, Part Number 5190-9385  
**Part No. (Chemical Kit)** : 5190-9385  
**Part No.** :  SureSelect Binding Buffer 5190-4407  
SureSelect Wash Buffer 1 5190-4408  
SureSelect Wash Buffer 2 5190-4409  
SureSelect Elution Buffer 5190-4410  
SureSelect Neutralization Buffer 5190-4411  
**Validation date** : 1/19/2018

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

**Material uses** : Analytical reagent.  
 SureSelect Binding Buffer 80 ml  
SureSelect Wash Buffer 1 48 ml  
SureSelect Wash Buffer 2 144 ml  
SureSelect Elution Buffer 5.8 ml  
SureSelect Neutralization Buffer 5.8 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** :  SureSelect Binding 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.  
SureSelect Wash Buffer 1 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.  
SureSelect Wash Buffer 2 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.  
SureSelect Elution Buffer This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

## Section 2. Hazards identification

SureSelect Neutralization Buffer

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

### Classification of the substance or mixture

#### SureSelect Elution Buffer

H320 EYE IRRITATION - Category 2B

#### SureSelect Neutralization Buffer

H315 SKIN IRRITATION - Category 2  
H319 EYE IRRITATION - Category 2A

#### Ingredients of unknown toxicity

SureSelect Binding Buffer  
 SureSelect Neutralization Buffer

Percentage of the mixture consisting of ingredient (s) of unknown inhalation toxicity: 1 - 10%  
 Percentage of the mixture consisting of ingredient (s) of unknown dermal toxicity: 10 - 30%  
 Percentage of the mixture consisting of ingredient (s) of unknown inhalation toxicity: 10 - 30%  
 Percentage of the mixture consisting of ingredient (s) of unknown oral toxicity: 10 - 30%

### 2.2 GHS label elements

#### Hazard pictograms

SureSelect Neutralization Buffer



#### Signal word

SureSelect Binding Buffer  
 SureSelect Wash Buffer 1  
 SureSelect Wash Buffer 2  
 SureSelect Elution Buffer  
 SureSelect Neutralization Buffer

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

#### Hazard statements

SureSelect Binding Buffer  
 SureSelect Wash Buffer 1  
 SureSelect Wash Buffer 2  
 SureSelect Elution Buffer  
 SureSelect Neutralization Buffer

No known significant effects or critical hazards.  
 No known significant effects or critical hazards.  
 No known significant effects or critical hazards.  
 H320 - Causes eye irritation.  
 H319 - Causes serious eye irritation.  
 H315 - Causes skin irritation.

### Precautionary statements

#### Prevention

SureSelect Binding Buffer  
 SureSelect Wash Buffer 1  
 SureSelect Wash Buffer 2  
 SureSelect Elution Buffer  
 SureSelect Neutralization Buffer

Not applicable.  
 Not applicable.  
 Not applicable.  
 P264 - Wash hands thoroughly after handling.  
 P280 - Wear protective gloves. Wear eye or face protection.  
 P264 - Wash hands thoroughly after handling.

#### Response

SureSelect Binding Buffer  
 SureSelect Wash Buffer 1  
 SureSelect Wash Buffer 2  
 SureSelect Elution Buffer  
  
 SureSelect Neutralization Buffer

Not applicable.  
 Not applicable.  
 Not applicable.  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337 + P313 - If eye irritation persists: Get medical attention.  
 P302 + P352 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.  
 P332 + P313 - If skin irritation occurs: Get medical

## Section 2. Hazards identification

		attention. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
<b>Storage</b>	: <input checked="" type="checkbox"/> SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2 SureSelect Elution Buffer SureSelect Neutralization Buffer	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
<b>Disposal</b>	: <input checked="" type="checkbox"/> SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2 SureSelect Elution Buffer SureSelect Neutralization Buffer	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
<b>Supplemental label elements</b>	: <input checked="" type="checkbox"/> SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2 SureSelect Elution Buffer SureSelect Neutralization Buffer	None known. None known. None known. None known. None known.
<b>2.3 Other hazards</b>		
<b>Hazards not otherwise classified</b>	: <input checked="" type="checkbox"/> SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2 SureSelect Elution Buffer SureSelect Neutralization Buffer	None known. None known. None known. None known. None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: <input checked="" type="checkbox"/> SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2 SureSelect Elution Buffer SureSelect Neutralization Buffer	Mixture Mixture Mixture Mixture Mixture
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Ingredient name	%	CAS number
<input checked="" type="checkbox"/> SureSelect Binding Buffer Sodium chloride	<10	7647-14-5
<b>SureSelect Neutralization Buffer</b> 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	≥10 - <20	1185-53-1



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

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

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

## Section 4. First aid measures

### 4.1 Description of necessary first aid measures

<b>Eye contact</b>	<b>:</b>	 SureSelect Binding 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.
		SureSelect Wash Buffer 1	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.
		SureSelect Wash Buffer 2	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.
		SureSelect Elution 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. If irritation persists, get medical attention.
		SureSelect Neutralization 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.
<b>Inhalation</b>	<b>:</b>	 SureSelect Binding Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
		SureSelect Wash Buffer 1	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
		SureSelect Wash Buffer 2	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
		SureSelect Elution 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.
		SureSelect Neutralization 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

## Section 4. First aid measures

### Skin contact

: SureSelect Binding Buffer

to be kept under medical surveillance for 48 hours.

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

SureSelect Wash Buffer 1

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

SureSelect Wash Buffer 2

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

SureSelect Elution 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.

SureSelect Neutralization Buffer

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

### Ingestion

: SureSelect Binding Buffer

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

SureSelect Wash Buffer 1

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

SureSelect Wash Buffer 2

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

SureSelect Elution Buffer

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if 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.

## Section 4. First aid measures

SureSelect Neutralization Buffer

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

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

#### Potential acute health effects

<b>Eye contact</b>	: SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2 SureSelect Elution Buffer SureSelect Neutralization Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes eye irritation. Causes serious eye irritation.
<b>Inhalation</b>	: SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2 SureSelect Elution Buffer SureSelect Neutralization Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Skin contact</b>	: SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2 SureSelect Elution Buffer SureSelect Neutralization Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes skin irritation.
<b>Ingestion</b>	: SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2 SureSelect Elution Buffer SureSelect Neutralization Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

<b>Eye contact</b>	: SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2 SureSelect Elution Buffer  SureSelect Neutralization Buffer	No specific data. No specific data. No specific data. Adverse symptoms may include the following: irritation watering redness Adverse symptoms may include the following: pain or irritation watering redness
<b>Inhalation</b>	: SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2 SureSelect Elution Buffer SureSelect Neutralization Buffer	No specific data. No specific data. No specific data. No specific data. No specific data.

## Section 4. First aid measures

<b>Skin contact</b>	: SureSelect Binding Buffer	No specific data.
	SureSelect Wash Buffer 1	No specific data.
	SureSelect Wash Buffer 2	No specific data.
	SureSelect Elution Buffer	No specific data.
	SureSelect Neutralization Buffer	Adverse symptoms may include the following: irritation redness
<b>Ingestion</b>	: SureSelect Binding Buffer	No specific data.
	SureSelect Wash Buffer 1	No specific data.
	SureSelect Wash Buffer 2	No specific data.
	SureSelect Elution Buffer	No specific data.
	SureSelect Neutralization Buffer	No specific data.

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

<b>Notes to physician</b>	: SureSelect Binding Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureSelect Wash Buffer 1	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureSelect Wash Buffer 2	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureSelect Elution Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureSelect Neutralization 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.
<b>Specific treatments</b>	: SureSelect Binding Buffer	No specific treatment.
	SureSelect Wash Buffer 1	No specific treatment.
	SureSelect Wash Buffer 2	No specific treatment.
	SureSelect Elution Buffer	No specific treatment.
	SureSelect Neutralization Buffer	No specific treatment.
<b>Protection of first-aiders</b>	: SureSelect Binding Buffer	No action shall be taken involving any personal risk or without suitable training.
	SureSelect Wash Buffer 1	No action shall be taken involving any personal risk or without suitable training.
	SureSelect Wash Buffer 2	No action shall be taken involving any personal risk or without suitable training.
	SureSelect Elution 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.
	SureSelect Neutralization 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.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: SureSelect Binding Buffer	Use an extinguishing agent suitable for the surrounding fire.
	SureSelect Wash Buffer 1	Use an extinguishing agent suitable for the surrounding fire.
	SureSelect Wash Buffer 2	Use an extinguishing agent suitable for the surrounding fire.
	SureSelect Elution Buffer	Use an extinguishing agent suitable for the surrounding fire.
	SureSelect Neutralization Buffer	Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: SureSelect Binding Buffer	None known.
	SureSelect Wash Buffer 1	None known.
	SureSelect Wash Buffer 2	None known.
	SureSelect Elution Buffer	None known.
	SureSelect Neutralization Buffer	None known.

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

<b>Specific hazards arising from the chemical</b>	: SureSelect Binding Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureSelect Wash Buffer 1	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureSelect Wash Buffer 2	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureSelect Elution Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureSelect Neutralization Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous thermal decomposition products</b>	: SureSelect Binding Buffer	Decomposition products may include the following materials: halogenated compounds metal oxide/oxides
	SureSelect Wash Buffer 1	No specific data.
	SureSelect Wash Buffer 2	No specific data.
	SureSelect Elution Buffer	No specific data.
	SureSelect Neutralization Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds

### 5.3 Advice for firefighters

<b>Special protective actions for fire-fighters</b>	: SureSelect Binding Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	SureSelect Wash Buffer 1	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 Wash Buffer 2	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 Elution Buffer	Promptly isolate the scene by removing all persons



## Section 5. Fire-fighting measures

### Special protective equipment for fire-fighters

SureSelect Neutralization Buffer

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.

: SureSelect Binding Buffer

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

SureSelect Wash Buffer 1

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

SureSelect Wash Buffer 2

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

SureSelect Elution Buffer

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

SureSelect Neutralization Buffer

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

: SureSelect Binding Buffer

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

SureSelect Wash Buffer 1

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.

SureSelect Wash Buffer 2

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.



SureSelect Elution Buffer

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

SureSelect Neutralization Buffer

No action shall be taken involving any personal

## Section 6. Accidental release measures

		<p>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>
<p><b>For emergency responders :</b></p>	<p>  SureSelect Binding Buffer             SureSelect Wash Buffer 1             SureSelect Wash Buffer 2             SureSelect Elution Buffer             SureSelect Neutralization Buffer         </p>	<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> <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> <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> <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> <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>
<p><b>6.2 Environmental precautions</b></p>	<p>  SureSelect Binding Buffer             SureSelect Wash Buffer 1             SureSelect Wash Buffer 2             SureSelect Elution Buffer             SureSelect Neutralization Buffer         </p>	<p>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).</p> <p>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).</p> <p>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).</p> <p>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).</p> <p>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).</p>
<p><b>6.3 Methods and materials for containment and cleaning up</b></p>		

## Section 6. Accidental release measures

<b>Methods for cleaning up</b>	: SureSelect Binding Buffer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
	SureSelect Wash Buffer 1	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 Wash Buffer 2	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 Elution Buffer	Stop leak if without risk. Move containers from spill area. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.
	SureSelect Neutralization Buffer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### 7.1 Precautions for safe handling

<b>Protective measures</b>	: SureSelect Binding Buffer	Put on appropriate personal protective equipment (see Section 8).
	SureSelect Wash Buffer 1	Put on appropriate personal protective equipment (see Section 8).
	SureSelect Wash Buffer 2	Put on appropriate personal protective equipment (see Section 8).
	SureSelect Elution 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. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container.
	SureSelect Neutralization 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. 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

<b>Advice on general occupational hygiene</b>	: SureSelect Binding Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	SureSelect Wash Buffer 1	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 Wash Buffer 2	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 Elution 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 Neutralization 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.
<b>7.2 Conditions for safe storage, including any incompatibilities</b>	: SureSelect Binding 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.
	SureSelect Wash Buffer 1	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.

## Section 7. Handling and storage

SureSelect Wash Buffer 2

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.

SureSelect Elution 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. Separate from acids. 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.

SureSelect Neutralization 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.

### 7.3 Specific end use(s)

#### Recommendations

: SureSelect Binding Buffer	Industrial applications, Professional applications.
SureSelect Wash Buffer 1	Industrial applications, Professional applications.
SureSelect Wash Buffer 2	Industrial applications, Professional applications.
SureSelect Elution Buffer	Industrial applications, Professional applications.
SureSelect Neutralization Buffer	Industrial applications, Professional applications.

#### Industrial sector specific solutions

: SureSelect Binding Buffer	Not applicable.
SureSelect Wash Buffer 1	Not applicable.
SureSelect Wash Buffer 2	Not applicable.
SureSelect Elution Buffer	Not applicable.
SureSelect Neutralization Buffer	Not applicable.

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
<b>SureSelect Binding Buffer</b> Sodium chloride	None.
<b>SureSelect Neutralization Buffer</b> 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	None.

## Section 8. Exposure controls/personal protection

### 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.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : SureSelect Binding Buffer Liquid.  
 SureSelect Wash Buffer 1 Liquid.  
 SureSelect Wash Buffer 2 Liquid.  
 SureSelect Elution Buffer Liquid.  
 SureSelect Neutralization Buffer Liquid.
- Color** : SureSelect Binding Buffer Not available.  
 SureSelect Wash Buffer 1 Not available.  
 SureSelect Wash Buffer 2 Not available.  
 SureSelect Elution Buffer Not available.  
 SureSelect Neutralization Buffer Not available.
- Odor** : SureSelect Binding Buffer Not available.  
 SureSelect Wash Buffer 1 Not available.  
 SureSelect Wash Buffer 2 Not available.  
 SureSelect Elution Buffer Not available.  
 SureSelect Neutralization Buffer Not available.

## Section 9. Physical and chemical properties

<b>Odor threshold</b>	: SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	Not available.
	SureSelect Wash Buffer 2	Not available.
	SureSelect Elution Buffer	Not available.
	SureSelect Neutralization Buffer	Not available.
<b>pH</b>	: SureSelect Binding Buffer	7.1 to 8.1
	SureSelect Wash Buffer 1	6.5 to 7.5
	SureSelect Wash Buffer 2	6.8 to 7.8
	SureSelect Elution Buffer	12.2 to 13.4
	SureSelect Neutralization Buffer	7.5
<b>Melting point</b>	: SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	0°C (32°F)
	SureSelect Wash Buffer 2	0°C (32°F)
	SureSelect Elution Buffer	0°C (32°F)
	SureSelect Neutralization Buffer	Not available.
<b>Boiling point</b>	: SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	100°C (212°F)
	SureSelect Wash Buffer 2	100°C (212°F)
	SureSelect Elution Buffer	100°C (212°F)
	SureSelect Neutralization Buffer	Not available.
<b>Flash point</b>	: SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	Not available.
	SureSelect Wash Buffer 2	Not available.
	SureSelect Elution Buffer	Not available.
	SureSelect Neutralization Buffer	Not available.
<b>Evaporation rate</b>	: SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	Not available.
	SureSelect Wash Buffer 2	Not available.
	SureSelect Elution Buffer	Not available.
	SureSelect Neutralization Buffer	Not available.
<b>Flammability (solid, gas)</b>	: SureSelect Binding Buffer	Not applicable.
	SureSelect Wash Buffer 1	Not applicable.
	SureSelect Wash Buffer 2	Not applicable.
	SureSelect Elution Buffer	Not applicable.
	SureSelect Neutralization Buffer	Not applicable.
<b>Lower and upper explosive (flammable) limits</b>	: SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	Not available.
	SureSelect Wash Buffer 2	Not available.
	SureSelect Elution Buffer	Not available.
	SureSelect Neutralization Buffer	Not available.
<b>Vapor pressure</b>	: SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	Not available.
	SureSelect Wash Buffer 2	Not available.
	SureSelect Elution Buffer	Not available.
	SureSelect Neutralization Buffer	Not available.
<b>Vapor density</b>	: SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	Not available.
	SureSelect Wash Buffer 2	Not available.
	SureSelect Elution Buffer	Not available.
	SureSelect Neutralization Buffer	Not available.
<b>Relative density</b>	: SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	Not available.
	SureSelect Wash Buffer 2	Not available.
	SureSelect Elution Buffer	Not available.
	SureSelect Neutralization Buffer	Not available.

## Section 9. Physical and chemical properties

<b>Solubility</b>	: SureSelect Binding Buffer	Easily soluble in the following materials: cold water and hot water.
	SureSelect Wash Buffer 1	Easily soluble in the following materials: cold water and hot water.
	SureSelect Wash Buffer 2	Easily soluble in the following materials: cold water and hot water.
	SureSelect Elution Buffer	Easily soluble in the following materials: cold water and hot water.
	SureSelect Neutralization Buffer	Easily soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	Not available.
	SureSelect Wash Buffer 2	Not available.
	SureSelect Elution Buffer	Not available.
	SureSelect Neutralization Buffer	Not available.
<b>Auto-ignition temperature</b>	: SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	Not available.
	SureSelect Wash Buffer 2	Not available.
	SureSelect Elution Buffer	Not available.
	SureSelect Neutralization Buffer	Not available.
<b>Decomposition temperature</b>	: SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	Not available.
	SureSelect Wash Buffer 2	Not available.
	SureSelect Elution Buffer	Not available.
	SureSelect Neutralization Buffer	Not available.
<b>Viscosity</b>	: SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	Not available.
	SureSelect Wash Buffer 2	Not available.
	SureSelect Elution Buffer	Not available.
	SureSelect Neutralization Buffer	Not available.

## Section 10. Stability and reactivity

<b>10.1 Reactivity</b>	: SureSelect Binding Buffer	No specific test data related to reactivity available for this product or its ingredients.
	SureSelect Wash Buffer 1	No specific test data related to reactivity available for this product or its ingredients.
	SureSelect Wash Buffer 2	No specific test data related to reactivity available for this product or its ingredients.
	SureSelect Elution Buffer	No specific test data related to reactivity available for this product or its ingredients.
	SureSelect Neutralization Buffer	No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: SureSelect Binding Buffer	The product is stable.
	SureSelect Wash Buffer 1	The product is stable.
	SureSelect Wash Buffer 2	The product is stable.
	SureSelect Elution Buffer	The product is stable.
	SureSelect Neutralization Buffer	The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: SureSelect Binding Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureSelect Wash Buffer 1	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureSelect Wash Buffer 2	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureSelect Elution Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.



## Section 10. Stability and reactivity

	SureSelect Neutralization Buffer	hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2 SureSelect Elution Buffer SureSelect Neutralization Buffer	No specific data. No specific data. No specific data. No specific data. No specific data.
<b>10.5 Incompatible materials</b>	: SureSelect Binding Buffer  SureSelect Wash Buffer 1  SureSelect Wash Buffer 2  SureSelect Elution Buffer  SureSelect Neutralization Buffer	May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. Reactive or incompatible with the following materials: acids May react or be incompatible with oxidizing materials.
<b>10.6 Hazardous decomposition products</b>	: SureSelect Binding Buffer  SureSelect Wash Buffer 1  SureSelect Wash Buffer 2  SureSelect Elution Buffer  SureSelect Neutralization Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
SureSelect Binding Buffer Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
SureSelect Binding Buffer Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

#### Sensitization

## Section 11. Toxicological information

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
<b>SureSelect Neutralization Buffer</b> 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	Category 3	Not applicable.	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** :

- SureSelect Binding Buffer : Not available.
- SureSelect Wash Buffer 1 : Not available.
- SureSelect Wash Buffer 2 : Not available.
- SureSelect Elution Buffer : Routes of entry anticipated: Oral, Dermal, Inhalation.
- SureSelect Neutralization Buffer : Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

**Eye contact** :

- SureSelect Binding Buffer : No known significant effects or critical hazards.
- SureSelect Wash Buffer 1 : No known significant effects or critical hazards.
- SureSelect Wash Buffer 2 : No known significant effects or critical hazards.
- SureSelect Elution Buffer : Causes eye irritation.
- SureSelect Neutralization Buffer : Causes serious eye irritation.

**Inhalation** :

- SureSelect Binding Buffer : No known significant effects or critical hazards.
- SureSelect Wash Buffer 1 : No known significant effects or critical hazards.
- SureSelect Wash Buffer 2 : No known significant effects or critical hazards.
- SureSelect Elution Buffer : No known significant effects or critical hazards.
- SureSelect Neutralization Buffer : No known significant effects or critical hazards.

**Skin contact** :

- SureSelect Binding Buffer : No known significant effects or critical hazards.
- SureSelect Wash Buffer 1 : No known significant effects or critical hazards.
- SureSelect Wash Buffer 2 : No known significant effects or critical hazards.
- SureSelect Elution Buffer : No known significant effects or critical hazards.
- SureSelect Neutralization Buffer : Causes skin irritation.

**Ingestion** :

- SureSelect Binding Buffer : No known significant effects or critical hazards.
- SureSelect Wash Buffer 1 : No known significant effects or critical hazards.
- SureSelect Wash Buffer 2 : No known significant effects or critical hazards.
- SureSelect Elution Buffer : No known significant effects or critical hazards.
- SureSelect Neutralization Buffer : No known significant effects or critical hazards.

## Section 11. Toxicological information

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

<b>Eye contact</b>	: SureSelect Binding Buffer	No specific data.
	SureSelect Wash Buffer 1	No specific data.
	SureSelect Wash Buffer 2	No specific data.
	SureSelect Elution Buffer	Adverse symptoms may include the following: irritation watering redness
	SureSelect Neutralization Buffer	Adverse symptoms may include the following: pain or irritation watering redness
<b>Inhalation</b>	: SureSelect Binding Buffer	No specific data.
	SureSelect Wash Buffer 1	No specific data.
	SureSelect Wash Buffer 2	No specific data.
	SureSelect Elution Buffer	No specific data.
	SureSelect Neutralization Buffer	No specific data.
<b>Skin contact</b>	: SureSelect Binding Buffer	No specific data.
	SureSelect Wash Buffer 1	No specific data.
	SureSelect Wash Buffer 2	No specific data.
	SureSelect Elution Buffer	No specific data.
	SureSelect Neutralization Buffer	Adverse symptoms may include the following: irritation redness
<b>Ingestion</b>	: SureSelect Binding Buffer	No specific data.
	SureSelect Wash Buffer 1	No specific data.
	SureSelect Wash Buffer 2	No specific data.
	SureSelect Elution Buffer	No specific data.
	SureSelect Neutralization Buffer	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.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Potential chronic health effects

<b>General</b>	: SureSelect Binding Buffer	No known significant effects or critical hazards.
	SureSelect Wash Buffer 1	No known significant effects or critical hazards.
	SureSelect Wash Buffer 2	No known significant effects or critical hazards.
	SureSelect Elution Buffer	No known significant effects or critical hazards.
	SureSelect Neutralization Buffer	No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: SureSelect Binding Buffer	No known significant effects or critical hazards.
	SureSelect Wash Buffer 1	No known significant effects or critical hazards.
	SureSelect Wash Buffer 2	No known significant effects or critical hazards.
	SureSelect Elution Buffer	No known significant effects or critical hazards.
	SureSelect Neutralization Buffer	No known significant effects or critical hazards.
<b>Mutagenicity</b>	: SureSelect Binding Buffer	No known significant effects or critical hazards.
	SureSelect Wash Buffer 1	No known significant effects or critical hazards.
	SureSelect Wash Buffer 2	No known significant effects or critical hazards.
	SureSelect Elution Buffer	No known significant effects or critical hazards.
	SureSelect Neutralization Buffer	No known significant effects or critical hazards.

## Section 11. Toxicological information

<b>Teratogenicity</b>	: SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2 SureSelect Elution Buffer SureSelect Neutralization Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Developmental effects</b>	: SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2 SureSelect Elution Buffer SureSelect Neutralization Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Fertility effects</b>	: SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2 SureSelect Elution Buffer SureSelect Neutralization Buffer	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
SureSelect Binding Buffer Oral	51369.9 mg/kg

## Section 12. Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
SureSelect Binding Buffer Sodium chloride	Acute EC50 4.74 g/L Fresh water	Algae - Chlamydomonas reinhardtii	96 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute EC50 402600 µg/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
	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

### 12.2 Persistence and degradability

Not available.

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

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

## Section 12. Ecological information

**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. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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

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

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

## Section 14. Transport information

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

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

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

## Section 15. Regulatory information

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

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

**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

## Section 15. Regulatory information

**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** :

SureSelect Binding Buffer	Not applicable.
SureSelect Wash Buffer 1	Not applicable.
SureSelect Wash Buffer 2	Not applicable.
SureSelect Elution Buffer	EYE IRRITATION - Category 2B
SureSelect Neutralization Buffer	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A

#### Composition/information on ingredients

Name	%	Classification
SureSelect Binding Buffer Sodium chloride	<10	EYE IRRITATION - Category 2A
SureSelect Neutralization Buffer 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	≥10 - <20	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

### State regulations

**Massachusetts** : None of the components are listed.

**New York** : None of the components are listed.

**New Jersey** : None of the components are listed.

**Pennsylvania** : None of the components are listed.

### International regulations

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

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

**Australia** : Not determined.

**Canada** : Not determined.

**China** : Not determined.

**Europe** : Not determined.

## Section 15. Regulatory information

<b>Japan</b>	: <input checked="" type="checkbox"/> <b>Japan inventory (ENCS):</b> All components are listed or exempted. <b>Japan inventory (ISHL):</b> All components are listed or exempted.
<b>Malaysia</b>	: Not determined.
<b>New Zealand</b>	: <input checked="" type="checkbox"/> Not determined.
<b>Philippines</b>	: <input checked="" type="checkbox"/> Not determined.
<b>Republic of Korea</b>	: <input checked="" type="checkbox"/> Not determined.
<b>Taiwan</b>	: <input checked="" type="checkbox"/> Not determined.
<b>Thailand</b>	: <input checked="" type="checkbox"/> Not determined.
<b>Turkey</b>	: <input checked="" type="checkbox"/> Not determined.
<b>United States</b>	: <input checked="" type="checkbox"/> Not determined.
<b>Viet Nam</b>	: <input checked="" type="checkbox"/> Not determined.

## Section 16. Other information

### History

<b>Date of issue</b>	: 01/19/2018
<b>Date of previous issue</b>	: 08/28/2015.
<b>Version</b>	: 2

Indicates information that has changed from previously issued version.

### Notice to reader

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