

Section 2. Hazards identification

Buffer

Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

SureSelect Elution Buffer

H290
H320

CORROSIVE TO METALS - Category 1
EYE IRRITATION - Category 2B

SureSelect Neutralization Buffer

H315
H319

SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A

SureSelect Neutralization Buffer

Percentage of the mixture consisting of ingredient (s) of unknown hazards to the aquatic environment: 15.8%

2.2 GHS label elements

Hazard pictograms

SureSelect Elution Buffer



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.
H290 - May be corrosive to metals.
H320 - Causes eye irritation.
H315 - Causes skin irritation.
H319 - Causes serious eye 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.
P234 - Keep only in original packaging.
P280 - Wear eye or face protection.
P264 - Wash 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.
P390 - Absorb spillage to prevent material damage.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice or attention.
P362 + P364 - Take off contaminated clothing and wash it before reuse.
P302 + P352 - IF ON SKIN: Wash with plenty of

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water.
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337 + P313 - If eye irritation persists: Get medical advice or attention.

Storage	: 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.
Disposal	: 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.
Supplemental label elements	: 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.

2.3 Other hazards

Hazards not otherwise classified	: 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.
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Section 3. Composition/information on ingredients

Substance/mixture	: 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
SureSelect Binding Buffer Sodium chloride	<10	7647-14-5
SureSelect Wash Buffer 1 Sodium dodecyl sulphate	≤0.3	151-21-3
SureSelect Wash Buffer 2 Sodium dodecyl sulphate	≤0.3	151-21-3
SureSelect Elution Buffer Sodium hydroxide	<1	1310-73-2
SureSelect Neutralization Buffer 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.

Section 3. Composition/information on ingredients

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

Section 4. First aid measures

4.1 Description of necessary first aid measures

Eye contact	: 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.
Inhalation	: 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

Section 4. First aid measures

Skin contact

: SureSelect Binding Buffer

an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

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.

Section 4. First aid measures

SureSelect Neutralization Buffer

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.

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

Eye contact	: 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.
Inhalation	: 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.
Skin contact	: 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.
Ingestion	: 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

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

Section 4. First aid measures

Inhalation	: 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.
Skin contact	: 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. Adverse symptoms may include the following: irritation redness
Ingestion	: 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.

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

Notes to physician	: SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2 SureSelect Elution Buffer SureSelect Neutralization Buffer	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. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2 SureSelect Elution Buffer SureSelect Neutralization Buffer	No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment.
Protection of first-aiders	: SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2 SureSelect Elution Buffer SureSelect Neutralization Buffer	No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	: 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.
Unsuitable extinguishing media	: 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

Specific hazards arising from the chemical	: 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.
Hazardous thermal decomposition products	: 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

Special protective actions for fire-fighters	: 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

		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 Neutralization 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.
Special protective equipment for fire-fighters	: 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>
For emergency responders :	SureSelect Binding Buffer	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	SureSelect Wash Buffer 1	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".
	SureSelect Wash Buffer 2	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".
	SureSelect Elution Buffer	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	SureSelect Neutralization Buffer	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
6.2 Environmental precautions :	SureSelect Binding Buffer	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	SureSelect Wash Buffer 1	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).
	SureSelect Wash Buffer 2	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).
	SureSelect Elution Buffer	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	SureSelect Neutralization Buffer	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Section 6. Accidental release measures

Methods for cleaning up	: 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. Absorb spillage to prevent material damage. 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

Protective measures	: 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. Absorb spillage to prevent material damage.
	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

Advice on general occupational hygiene	: 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.
7.2 Conditions for safe storage, including any incompatibilities	: 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. Store in a corrosion resistant container with a resistant inner liner. Separate from acids. Keep away from metals. 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 SureSelect Wash Buffer 1 SureSelect Wash Buffer 2 SureSelect Elution Buffer SureSelect Neutralization Buffer	Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
Industrial sector specific solutions	: 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.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
SureSelect Binding Buffer Sodium chloride	None.
SureSelect Wash Buffer 1 Sodium dodecyl sulphate	None.
SureSelect Wash Buffer 2 Sodium dodecyl sulphate	None.
SureSelect Elution Buffer Sodium hydroxide	ACGIH TLV (United States, 3/2019). C: 2 mg/m ³ OSHA PEL 1989 (United States, 3/1989). CEIL: 2 mg/m ³ NIOSH REL (United States, 10/2016). CEIL: 2 mg/m ³ OSHA PEL (United States, 5/2018). TWA: 2 mg/m ³ 8 hours.
SureSelect Neutralization Buffer 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	None.

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.

Section 8. Exposure controls/personal protection

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.
Odor threshold	: 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.
pH	: SureSelect Binding Buffer	7.1 to 8.1
	SureSelect Wash Buffer 1	7.5
	SureSelect Wash Buffer 2	7
	SureSelect Elution Buffer	12.2 to 13.4
	SureSelect Neutralization Buffer	7.5
Melting point	: 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.
Boiling point	: 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.
Flash point	: 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.
Evaporation rate	: 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

Flammability (solid, gas)	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.
Lower and upper explosive (flammable) limits	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.
Vapor pressure	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.
Vapor density	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.
Relative density	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.
Solubility	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.
Partition coefficient: n-octanol/water	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.
Auto-ignition temperature	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.
Decomposition temperature	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.
Viscosity	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

10.1 Reactivity	: 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.
10.2 Chemical stability	: 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.
10.3 Possibility of hazardous reactions	: 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.
	SureSelect Neutralization Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: 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.
10.5 Incompatible materials	: SureSelect Binding Buffer	May react or be incompatible with oxidizing materials.
	SureSelect Wash Buffer 1	May react or be incompatible with oxidizing materials.
	SureSelect Wash Buffer 2	May react or be incompatible with oxidizing materials.
	SureSelect Elution Buffer	Reactive or incompatible with the following materials: acids metals
	SureSelect Neutralization Buffer	May react or be incompatible with oxidizing materials.
10.6 Hazardous decomposition products	: SureSelect Binding Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SureSelect Wash Buffer 1	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SureSelect Wash Buffer 2	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 10. Stability and reactivity

SureSelect Elution Buffer

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SureSelect Neutralization Buffer

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	-
SureSelect Wash Buffer 1 Sodium dodecyl sulphate	LD50 Oral	Rat	1288 mg/kg	-
SureSelect Wash Buffer 2 Sodium dodecyl sulphate	LD50 Oral	Rat	1288 mg/kg	-
SureSelect Elution Buffer Sodium hydroxide	LD50 Dermal	Rabbit	1350 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
SureSelect Binding Buffer Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
SureSelect Wash Buffer 1 Sodium dodecyl sulphate	Eyes - Mild irritant	Rabbit	-	250 ug	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Skin - Mild irritant	Guinea pig	-	24 hours 25 mg	-
	Skin - Moderate irritant	Mouse	-	24 hours 25 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 50 mg	-
SureSelect Wash Buffer 2 Sodium dodecyl sulphate	Skin - Moderate irritant	Rabbit	-	24 hours 25 mg	-
	Eyes - Mild irritant	Rabbit	-	250 ug	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Skin - Mild irritant	Guinea pig	-	24 hours 25 mg	-
	Skin - Moderate irritant	Mouse	-	24 hours 25 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 50 mg	-

Section 11. Toxicological information

SureSelect Elution Buffer Sodium hydroxide	Skin - Moderate irritant	Rabbit	-	mg 24 hours 25 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 50 ug	-
	Eyes - Severe irritant	Rabbit	-	1 %	-
	Eyes - Severe irritant	Rabbit	-	0.5 minutes 1 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 mg	-

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
SureSelect Wash Buffer 1 Sodium dodecyl sulphate	Category 3	-	Respiratory tract irritation
SureSelect Wash Buffer 2 Sodium dodecyl sulphate	Category 3	-	Respiratory tract irritation
SureSelect Elution Buffer Sodium hydroxide	Category 3	-	Respiratory tract irritation
SureSelect Neutralization Buffer 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Section 11. Toxicological information

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.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: 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
Inhalation	: 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.
Skin contact	: 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

Section 11. Toxicological information

Ingestion	: 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

General	: 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.
Carcinogenicity	: 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.
Mutagenicity	: 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.
Teratogenicity	: 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.
Developmental effects	: 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.
Fertility effects	: 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.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
SureSelect Binding Buffer SureSelect Binding Buffer Sodium chloride	51369.9 3000	N/A N/A	N/A N/A	N/A N/A	N/A N/A
SureSelect Wash Buffer 1 Sodium dodecyl sulphate	1288	N/A	N/A	N/A	1.5
SureSelect Wash Buffer 2 Sodium dodecyl sulphate	1288	N/A	N/A	N/A	1.5
SureSelect Elution Buffer Sodium hydroxide	N/A	1350	N/A	N/A	N/A

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 Acute EC50 519.6 mg/l Fresh water Acute IC50 6.87 g/L Fresh water Acute LC50 1000000 µg/l Fresh water Chronic LC10 781 mg/l Fresh water Chronic NOEC 6 g/L Fresh water Chronic NOEC 0.314 g/L Fresh water Chronic NOEC 100 mg/l Fresh water	Algae - Chlamydomonas reinhardtii Crustaceans - Cypris subglobosa Aquatic plants - Lemna minor Fish - Morone saxatilis - Larvae Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling) Aquatic plants - Lemna minor Daphnia - Daphnia pulex Fish - Gambusia holbrooki - Adult	96 hours 48 hours 96 hours 96 hours 3 weeks 96 hours 21 days 8 weeks
SureSelect Wash Buffer 1 Sodium dodecyl sulphate	Acute EC50 1200 µg/l Marine water Acute LC50 900 µg/l Marine water Acute LC50 1400 µg/l Fresh water Acute LC50 590 µg/l Fresh water Chronic NOEC 1.25 mg/l Marine water Chronic NOEC 1 mg/l Fresh water Chronic NOEC 3.2 mg/l Fresh water Chronic NOEC >1357 µg/l Fresh water	Algae - Skeletonema costatum Crustaceans - Artemia salina - Adult Daphnia - Daphnia pulex - Neonate Fish - Cirrhinus mrigala - Larvae Algae - Ulva fasciata - Zoea Crustaceans - Pseudosida ramosa - Neonate Daphnia - Daphnia magna - Neonate Fish - Pimephales promelas	96 hours 48 hours 48 hours 96 hours 96 hours 21 days 21 days 42 days
SureSelect Wash Buffer 2 Sodium dodecyl sulphate	Acute EC50 1200 µg/l Marine water Acute LC50 900 µg/l Marine water Acute LC50 1400 µg/l Fresh water	Algae - Skeletonema costatum Crustaceans - Artemia salina - Adult Daphnia - Daphnia pulex - Neonate	96 hours 48 hours 48 hours

Section 12. Ecological information

SureSelect Elution Buffer Sodium hydroxide	Acute LC50 590 µg/l Fresh water	Fish - <i>Cirrhinus mrigala</i> - Larvae	96 hours
	Chronic NOEC 1.25 mg/l Marine water	Algae - <i>Ulva fasciata</i> - Zoea	96 hours
	Chronic NOEC 1 mg/l Fresh water	Crustaceans - <i>Pseudosida ramosa</i> - Neonate	21 days
	Chronic NOEC 3.2 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days
	Chronic NOEC >1357 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	42 days
	Acute LC50 125 ppm Fresh water	Fish - <i>Gambusia affinis</i> - Adult	96 hours

12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
SureSelect Elution Buffer Sodium hydroxide	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
SureSelect Wash Buffer 1 Sodium dodecyl sulphate	-2.03	-	low
SureSelect Wash Buffer 2 Sodium dodecyl sulphate	-2.03	-	low

12.4 Mobility in soil

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

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

Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. 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

Section 13. Disposal considerations

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 IMO instruments : Not available.

Section 15. Regulatory information

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

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

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	CORROSIVE TO METALS - Category 1
		EYE IRRITATION - Category 2B
	SureSelect Neutralization Buffer	SKIN IRRITATION - Category 2
		EYE IRRITATION - Category 2A

Composition/information on ingredients

Section 15. Regulatory information

Name	%	Classification
SureSelect Binding Buffer Sodium chloride	<10	EYE IRRITATION - Category 2A
SureSelect Elution Buffer Sodium hydroxide	<1	CORROSIVE TO METALS - Category 1 ACUTE TOXICITY (dermal) - Category 4 SKIN CORROSION - Category 1A SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 HNOC - Corrosive to digestive tract
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.
California Prop. 65

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

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

- Australia** : All components are listed or exempted.
Canada : All components are listed or exempted.
China : All components are listed or exempted.
Europe : All components are listed or exempted.
Japan : **Japan inventory (ENCS)**: All components are listed or exempted.
Japan inventory (ISHL): All components are listed or exempted.
New Zealand : All components are listed or exempted.
Philippines : All components are listed or exempted.
Republic of Korea : All components are listed or exempted.
Taiwan : All components are listed or exempted.

Section 15. Regulatory information

Thailand	: Not determined.
Turkey	: Not determined.
United States	: <input checked="" type="checkbox"/> All components are active or exempted.
Viet Nam	: <input checked="" type="checkbox"/> All components are listed or exempted.

Section 16. Other information

History

Date of issue	: 08/03/2020
Date of previous issue	: 01/19/2018
Version	: 3

Key to abbreviations

: ATE = Acute Toxicity Estimate
: BCF = Bioconcentration Factor
: GHS = Globally Harmonized System of Classification and Labelling of Chemicals
: IATA = International Air Transport Association
: IBC = Intermediate Bulk Container
: IMDG = International Maritime Dangerous Goods
: LogPow = logarithm of the octanol/water partition coefficient
: MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
: N/A = Not available
: UN = United Nations

Procedure used to derive the classification

Classification	Justification
<input checked="" type="checkbox"/> SureSelect Elution Buffer CORROSIVE TO METALS - Category 1 EYE IRRITATION - Category 2B	Expert judgment Expert judgment
SureSelect Neutralization Buffer SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A	Calculation method Calculation method

Indicates information that has changed from previously issued version.

Notice to reader

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