

SAFETY DATA SHEET

SureSelect Target Enrichment-Box 1 - 480 Reactions, Part Number 5190-4395

Section 1. Identification

1.1 Product identifier

Product name : SureSelect Target Enrichment-Box 1 - 480 Reactions, Part Number 5190-4395
Part No. (Chemical Kit) : 5190-4395
Part No. : SureSelect Hyb 1 5190-4412
 SureSelect Hyb 2 5190-4413
 SureSelect Hyb 4 5190-4414
 SureSelect Binding Buffer 5190-4415
 SureSelect Wash Buffer 1 5190-4416
 SureSelect Wash Buffer 5190-4417
 SureSelect Elution Buffer 5190-4418
 SureSelect Neutralization Buffer 5190-4419

Validation date : 10/25/2017

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

Material uses : Analytical reagent.
 SureSelect Hyb 1 12 ml
 SureSelect Hyb 2 0.48 ml
 SureSelect Hyb 4 6.25 ml
 SureSelect Binding Buffer 400 ml
 SureSelect Wash Buffer 1 240 ml
 SureSelect Wash Buffer 720 ml
 SureSelect Elution Buffer 29 ml
 SureSelect Neutralization Buffer 29 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 Hyb 1 This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 SureSelect Hyb 2 This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 SureSelect Hyb 4 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 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

Section 2. Hazards identification

| | |
|----------------------------------|--|
| SureSelect Wash Buffer 1 | other users of this product. 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 | 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). |
| 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 Hyb 1

H319 EYE IRRITATION - Category 2A

SureSelect Hyb 2

H319 EYE IRRITATION - Category 2A
H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (respiratory tract) - Category 2

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 Hyb 1 | Percentage of the mixture consisting of ingredient (s) of unknown dermal toxicity: 1 - 10% |
| SureSelect Hyb 2 | Percentage of the mixture consisting of ingredient (s) of unknown inhalation toxicity: 10 - 30% |
| SureSelect Hyb 4 | Percentage of the mixture consisting of ingredient (s) of unknown dermal toxicity: 10 - 30% |
| SureSelect Binding Buffer | Percentage of the mixture consisting of ingredient (s) of unknown dermal toxicity: 1 - 10% |
| 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

Section 2. Hazards identification

Hazard pictograms

: SureSelect Hyb 1



SureSelect Hyb 2



SureSelect Neutralization Buffer



Signal word

: SureSelect Hyb 1
 SureSelect Hyb 2
 SureSelect Hyb 4
 SureSelect Binding Buffer
 SureSelect Wash Buffer 1
 SureSelect Wash Buffer
 SureSelect Elution Buffer
 SureSelect Neutralization Buffer

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

Hazard statements

: SureSelect Hyb 1
 SureSelect Hyb 2

 SureSelect Hyb 4
 SureSelect Binding Buffer
 SureSelect Wash Buffer 1
 SureSelect Wash Buffer
 SureSelect Elution Buffer
 SureSelect Neutralization Buffer

H319 - Causes serious eye irritation.
 H319 - Causes serious eye irritation.
 H373 - May cause damage to organs through prolonged or repeated exposure. (respiratory tract)
 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.
 H320 - Causes eye irritation.
 H319 - Causes serious eye irritation.
 H315 - Causes skin irritation.

Precautionary statements

Prevention

: SureSelect Hyb 1

 SureSelect Hyb 2

 SureSelect Hyb 4
 SureSelect Binding Buffer
 SureSelect Wash Buffer 1
 SureSelect Wash Buffer
 SureSelect Elution Buffer
 SureSelect Neutralization Buffer

P280 - Wear eye or face protection.
 P264 - Wash hands thoroughly after handling.
 P280 - Wear eye or face protection.
 P260 - Do not breathe vapor.
 P264 - Wash hands thoroughly after handling.
 Not applicable.
 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 Hyb 1

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.

SureSelect Hyb 2

P314 - Get medical attention if you feel unwell.
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

Section 2. Hazards identification

| | | |
|------------------------------------|--|---|
| | SureSelect Hyb 4 | rinsing. |
| | SureSelect Binding Buffer | P337 + P313 - If eye irritation persists: Get medical attention. |
| | SureSelect Wash Buffer 1 | Not applicable. |
| | SureSelect Wash Buffer | Not applicable. |
| | SureSelect Elution Buffer | 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. |
| | SureSelect Neutralization Buffer | 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 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. |
| Storage | : <input checked="" type="checkbox"/> SureSelect Hyb 1 | Not applicable. |
| | SureSelect Hyb 2 | Not applicable. |
| | SureSelect Hyb 4 | Not applicable. |
| | SureSelect Binding Buffer | Not applicable. |
| | SureSelect Wash Buffer 1 | Not applicable. |
| | SureSelect Wash Buffer | Not applicable. |
| | SureSelect Elution Buffer | Not applicable. |
| | SureSelect Neutralization Buffer | Not applicable. |
| Disposal | : <input checked="" type="checkbox"/> SureSelect Hyb 1 | Not applicable. |
| | SureSelect Hyb 2 | P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| | SureSelect Hyb 4 | Not applicable. |
| | SureSelect Binding Buffer | Not applicable. |
| | SureSelect Wash Buffer 1 | Not applicable. |
| | SureSelect Wash Buffer | Not applicable. |
| | SureSelect Elution Buffer | Not applicable. |
| | SureSelect Neutralization Buffer | Not applicable. |
| Supplemental label elements | : <input checked="" type="checkbox"/> SureSelect Hyb 1 | None known. |
| | SureSelect Hyb 2 | None known. |
| | SureSelect Hyb 4 | None known. |
| | SureSelect Binding Buffer | None known. |
| | SureSelect Wash Buffer 1 | None known. |
| | SureSelect Wash Buffer | None known. |
| | SureSelect Elution Buffer | None known. |
| | SureSelect Neutralization Buffer | None known. |

2.3 Other hazards

Section 2. Hazards identification

| | | | |
|---|---|----------------------------------|-------------|
| Hazards not otherwise classified | : | SureSelect Hyb 1 | None known. |
| | | SureSelect Hyb 2 | None known. |
| | | SureSelect Hyb 4 | None known. |
| | | SureSelect Binding Buffer | None known. |
| | | SureSelect Wash Buffer 1 | None known. |
| | | SureSelect Wash Buffer | None known. |
| | | SureSelect Elution Buffer | None known. |
| | | SureSelect Neutralization Buffer | None known. |

Section 3. Composition/information on ingredients

| | | | |
|--------------------------|---|----------------------------------|---------|
| Substance/mixture | : | SureSelect Hyb 1 | Mixture |
| | | SureSelect Hyb 2 | Mixture |
| | | SureSelect Hyb 4 | Mixture |
| | | SureSelect Binding Buffer | Mixture |
| | | SureSelect Wash Buffer 1 | Mixture |
| | | SureSelect Wash Buffer | Mixture |
| | | SureSelect Elution Buffer | Mixture |
| | | SureSelect Neutralization Buffer | Mixture |

| Ingredient name | % | CAS number |
|--|-----------------|------------------------|
| SureSelect Hyb 1 Sodium chloride Sodium dihydrogenorthophosphate | ≥10 - ≤25 ≤3 | 7647-14-5 7558-80-7 |
| SureSelect Hyb 2 Disodium dihydrogen ethylenediaminetetraacetate | ≥10 - ≤25 | 139-33-3 |
| SureSelect Hyb 4 Sulfuric acid monododecyl ester sodium salt (1:1) | ≤3 | 8012-56-4 |
| SureSelect Binding Buffer Sodium chloride | <10 | 7647-14-5 |
| 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.

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 Hyb 1 | 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. |
| | | SureSelect Hyb 2 | 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. |
| | | SureSelect Hyb 4 | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. |

Section 4. First aid measures

Check for and remove any contact lenses. Get medical attention if irritation occurs.

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

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 Hyb 1

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 Hyb 2

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 following exposure or if feeling unwell. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

SureSelect Hyb 4

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

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

Section 4. First aid measures

| | | |
|---------------------|----------------------------------|--|
| | SureSelect Wash Buffer | attention if symptoms occur. 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 to be kept under medical surveillance for 48 hours. |
| Skin contact | : SureSelect Hyb 1 | 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 Hyb 2 | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| | SureSelect Hyb 4 | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| | SureSelect Binding Buffer | 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 | 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 |

Section 4. First aid measures

| | | |
|------------------|----------------------------------|---|
| | SureSelect Neutralization Buffer | before reuse. 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 Hyb 1 | 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. |
| | SureSelect Hyb 2 | 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 following exposure or if feeling unwell. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| | SureSelect Hyb 4 | 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 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. |

Section 4. First aid measures

| | |
|----------------------------------|---|
| SureSelect Wash 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 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. |
| 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

| | | |
|--------------------|--|--|
| Eye contact | : SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer SureSelect Elution Buffer SureSelect Neutralization Buffer | Causes serious eye irritation. Causes serious eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes eye irritation. Causes serious eye irritation. |
| Inhalation | : SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 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. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |

Section 4. First aid measures

Skin contact : SureSelect Hyb 1 No known significant effects or critical hazards.
 SureSelect Hyb 2 No known significant effects or critical hazards.
 SureSelect Hyb 4 No known significant effects or critical hazards.
 SureSelect Binding Buffer No known significant effects or critical hazards.
 SureSelect Wash Buffer 1 No known significant effects or critical hazards.
 SureSelect Wash Buffer 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 Hyb 1 No known significant effects or critical hazards.
 SureSelect Hyb 2 No known significant effects or critical hazards.
 SureSelect Hyb 4 No known significant effects or critical hazards.
 SureSelect Binding Buffer No known significant effects or critical hazards.
 SureSelect Wash Buffer 1 No known significant effects or critical hazards.
 SureSelect Wash Buffer 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.

Over-exposure signs/symptoms

Eye contact : SureSelect Hyb 1 Adverse symptoms may include the following:
 pain or irritation
 watering
 redness
 SureSelect Hyb 2 Adverse symptoms may include the following:
 pain or irritation
 watering
 redness
 SureSelect Hyb 4 No specific data.
 SureSelect Binding Buffer No specific data.
 SureSelect Wash Buffer 1 No specific data.
 SureSelect Wash Buffer 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 Hyb 1 No specific data.
 SureSelect Hyb 2 No specific data.
 SureSelect Hyb 4 No specific data.
 SureSelect Binding Buffer No specific data.
 SureSelect Wash Buffer 1 No specific data.
 SureSelect Wash Buffer No specific data.
 SureSelect Elution Buffer No specific data.
 SureSelect Neutralization Buffer No specific data.

Skin contact : SureSelect Hyb 1 No specific data.
 SureSelect Hyb 2 No specific data.
 SureSelect Hyb 4 No specific data.
 SureSelect Binding Buffer No specific data.
 SureSelect Wash Buffer 1 No specific data.
 SureSelect Wash Buffer No specific data.
 SureSelect Elution Buffer No specific data.
 SureSelect Neutralization Buffer Adverse symptoms may include the following:
 irritation
 redness

Section 4. First aid measures

| | | | |
|------------------|---|----------------------------------|-------------------|
| Ingestion | : | ☑ SureSelect Hyb 1 | No specific data. |
| | | SureSelect Hyb 2 | No specific data. |
| | | SureSelect Hyb 4 | No specific data. |
| | | SureSelect Binding Buffer | No specific data. |
| | | SureSelect Wash Buffer 1 | No specific data. |
| | | SureSelect Wash Buffer | 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

| | | | |
|-----------------------------------|---|----------------------------------|--|
| Notes to physician | : | ☑ SureSelect Hyb 1 | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| | | SureSelect Hyb 2 | 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. |
| | | SureSelect Hyb 4 | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| | | 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 | 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. |
| Specific treatments | : | ☑ SureSelect Hyb 1 | No specific treatment. |
| | | SureSelect Hyb 2 | No specific treatment. |
| | | SureSelect Hyb 4 | No specific treatment. |
| | | SureSelect Binding Buffer | No specific treatment. |
| | | SureSelect Wash Buffer 1 | No specific treatment. |
| | | SureSelect Wash Buffer | No specific treatment. |
| | | SureSelect Elution Buffer | No specific treatment. |
| | | SureSelect Neutralization Buffer | No specific treatment. |
| Protection of first-aiders | : | ☑ SureSelect Hyb 1 | 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 Hyb 2 | 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 Hyb 4 | No action shall be taken involving any personal risk or without suitable training. |
| | | 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. |
| | | | |

Section 4. First aid measures


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|----------------------------------|--|
| SureSelect Wash Buffer | 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

Suitable extinguishing media


| | |
|--|---|
| :  SureSelect Hyb 1 | Use an extinguishing agent suitable for the surrounding fire. |
| SureSelect Hyb 2 | Use an extinguishing agent suitable for the surrounding fire. |
| SureSelect Hyb 4 | Use an extinguishing agent suitable for the surrounding fire. |
| 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 | 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 Hyb 1 | None known. |
| SureSelect Hyb 2 | None known. |
| SureSelect Hyb 4 | None known. |
| SureSelect Binding Buffer | None known. |
| SureSelect Wash Buffer 1 | None known. |
| SureSelect Wash Buffer | 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 Hyb 1 | In a fire or if heated, a pressure increase will occur and the container may burst. |
| SureSelect Hyb 2 | In a fire or if heated, a pressure increase will occur and the container may burst. |
| SureSelect Hyb 4 | In a fire or if heated, a pressure increase will occur and the container may burst. |
| 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 | 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. |

Section 5. Fire-fighting measures

Hazardous thermal decomposition products

| | |
|----------------------------------|--|
| : SureSelect Hyb 1 | Decomposition products may include the following materials: phosphorus oxides halogenated compounds metal oxide/oxides |
| SureSelect Hyb 2 | Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides metal oxide/oxides |
| SureSelect Hyb 4 | Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides metal oxide/oxides |
| 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 | 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 Hyb 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 Hyb 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 Hyb 4 | 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 | 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 | 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 from the vicinity of the incident if there is a fire. No |

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters

| | | |
|----------------------------------|--|---|
| SureSelect Neutralization Buffer | | action shall be taken involving any personal risk or without suitable training. |
| : SureSelect Hyb 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 Hyb 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 Hyb 4 | | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |
| 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 | | 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 Hyb 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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| SureSelect Hyb 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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate |

Section 6. Accidental release measures

| | |
|--|--|
| SureSelect Hyb 4 | personal protective equipment. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. |
| 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 | 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 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. |
| For emergency responders : SureSelect Hyb 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 Hyb 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 Hyb 4 | 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 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". |

Section 6. Accidental release measures

| | |
|----------------------------------|---|
| 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 | 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 Hyb 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 Hyb 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 Hyb 4 | 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 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 | 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). |

Section 6. Accidental release measures

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : SureSelect Hyb 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 Hyb 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 Hyb 4

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 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

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

Section 7. Handling and storage

| | | |
|---|----------------------------------|---|
| Protective measures | : SureSelect Hyb 1 | 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. |
| | SureSelect Hyb 2 | Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| | SureSelect Hyb 4 | Put on appropriate personal protective equipment (see Section 8). |
| | 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 | 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. |
| Advice on general occupational hygiene | : SureSelect Hyb 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 Hyb 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 Hyb 4 | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment |

Section 7. Handling and storage

| | |
|----------------------------------|--|
| SureSelect Binding Buffer | before entering eating areas. See also Section 8 for additional information on hygiene measures. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |
| 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 | 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 Hyb 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. |
| SureSelect Hyb 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 |

Section 7. Handling and storage

| | |
|----------------------------------|--|
| SureSelect Hyb 4 | <p>incompatible materials before handling or use. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p> |
| SureSelect Binding Buffer | <p>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.</p> |
| SureSelect Wash Buffer 1 | <p>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.</p> |
| SureSelect Wash Buffer | <p>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.</p> |
| SureSelect Elution Buffer | <p>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.</p> |
| SureSelect Neutralization Buffer | <p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a</p> |

Section 7. Handling and storage

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 Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 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 applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. |
| Industrial sector specific solutions | : SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer SureSelect Elution Buffer SureSelect Neutralization Buffer | Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. |

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|--|-----------------|
| SureSelect Hyb 1 Sodium chloride Sodium dihydrogenorthophosphate | None. None. |
| SureSelect Hyb 2 Disodium dihydrogen ethylenediaminetetraacetate | None. |
| SureSelect Hyb 4 Sulfuric acid monododecyl ester sodium salt (1:1) | None. |
| SureSelect Binding Buffer Sodium chloride | None. |
| SureSelect Neutralization Buffer 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride | None. |

8.2 Exposure controls

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Section 8. Exposure controls/personal protection

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: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

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

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

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

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

| | | |
|----------------------------------|----------------------------------|------------------|
| Physical state | SureSelect Hyb 1 | Liquid. |
| | SureSelect Hyb 2 | Liquid. |
| | SureSelect Hyb 4 | Liquid. |
| | SureSelect Binding Buffer | Liquid. |
| | SureSelect Wash Buffer 1 | Liquid. |
| | SureSelect Wash Buffer | Liquid. |
| | SureSelect Elution Buffer | Liquid. |
| | SureSelect Neutralization Buffer | Liquid. |
| | Color | SureSelect Hyb 1 |
| SureSelect Hyb 2 | | Not available. |
| SureSelect Hyb 4 | | Not available. |
| SureSelect Binding Buffer | | Not available. |
| SureSelect Wash Buffer 1 | | Not available. |
| SureSelect Wash Buffer | | Not available. |
| SureSelect Elution Buffer | | Not available. |
| SureSelect Neutralization Buffer | | Not available. |

Section 9. Physical and chemical properties

| | | |
|-------------------------|----------------------------------|----------------|
| Odor | : SureSelect Hyb 1 | Not available. |
| | SureSelect Hyb 2 | Not available. |
| | SureSelect Hyb 4 | Not available. |
| | SureSelect Binding Buffer | Not available. |
| | SureSelect Wash Buffer 1 | Not available. |
| | SureSelect Wash Buffer | Not available. |
| | SureSelect Elution Buffer | Not available. |
| | SureSelect Neutralization Buffer | Not available. |
| Odor threshold | : SureSelect Hyb 1 | Not available. |
| | SureSelect Hyb 2 | Not available. |
| | SureSelect Hyb 4 | Not available. |
| | SureSelect Binding Buffer | Not available. |
| | SureSelect Wash Buffer 1 | Not available. |
| | SureSelect Wash Buffer | Not available. |
| | SureSelect Elution Buffer | Not available. |
| | SureSelect Neutralization Buffer | Not available. |
| pH | : SureSelect Hyb 1 | 7.4 |
| | SureSelect Hyb 2 | 8 |
| | SureSelect Hyb 4 | 5.2 to 6.2 |
| | SureSelect Binding Buffer | 7.1 to 8.1 |
| | SureSelect Wash Buffer 1 | 6.5 to 7.5 |
| | SureSelect Wash Buffer | 6.8 to 7.8 |
| | SureSelect Elution Buffer | 12.2 to 13.4 |
| | SureSelect Neutralization Buffer | 7.5 |
| Melting point | : SureSelect Hyb 1 | Not available. |
| | SureSelect Hyb 2 | Not available. |
| | SureSelect Hyb 4 | 0°C (32°F) |
| | SureSelect Binding Buffer | Not available. |
| | SureSelect Wash Buffer 1 | 0°C (32°F) |
| | SureSelect Wash Buffer | 0°C (32°F) |
| | SureSelect Elution Buffer | 0°C (32°F) |
| | SureSelect Neutralization Buffer | Not available. |
| Boiling point | : SureSelect Hyb 1 | Not available. |
| | SureSelect Hyb 2 | Not available. |
| | SureSelect Hyb 4 | 100°C (212°F) |
| | SureSelect Binding Buffer | Not available. |
| | SureSelect Wash Buffer 1 | 100°C (212°F) |
| | SureSelect Wash Buffer | 100°C (212°F) |
| | SureSelect Elution Buffer | 100°C (212°F) |
| | SureSelect Neutralization Buffer | Not available. |
| Flash point | : SureSelect Hyb 1 | Not available. |
| | SureSelect Hyb 2 | Not available. |
| | SureSelect Hyb 4 | Not available. |
| | SureSelect Binding Buffer | Not available. |
| | SureSelect Wash Buffer 1 | Not available. |
| | SureSelect Wash Buffer | Not available. |
| | SureSelect Elution Buffer | Not available. |
| | SureSelect Neutralization Buffer | Not available. |
| Evaporation rate | : SureSelect Hyb 1 | Not available. |
| | SureSelect Hyb 2 | Not available. |
| | SureSelect Hyb 4 | Not available. |
| | SureSelect Binding Buffer | Not available. |
| | SureSelect Wash Buffer 1 | Not available. |
| | SureSelect Wash Buffer | Not available. |
| | SureSelect Elution Buffer | Not available. |
| | SureSelect Neutralization Buffer | Not available. |

Section 9. Physical and chemical properties

| | | |
|---|----------------------------------|--|
| Flammability (solid, gas) | : SureSelect Hyb 1 | Not applicable. |
| | SureSelect Hyb 2 | Not applicable. |
| | SureSelect Hyb 4 | Not applicable. |
| | SureSelect Binding Buffer | Not applicable. |
| | SureSelect Wash Buffer 1 | Not applicable. |
| | SureSelect Wash Buffer | Not applicable. |
| | SureSelect Elution Buffer | Not applicable. |
| | SureSelect Neutralization Buffer | Not applicable. |
| Lower and upper explosive (flammable) limits | : SureSelect Hyb 1 | Not available. |
| | SureSelect Hyb 2 | Not available. |
| | SureSelect Hyb 4 | Not available. |
| | SureSelect Binding Buffer | Not available. |
| | SureSelect Wash Buffer 1 | Not available. |
| | SureSelect Wash Buffer | Not available. |
| | SureSelect Elution Buffer | Not available. |
| | SureSelect Neutralization Buffer | Not available. |
| Vapor pressure | : SureSelect Hyb 1 | Not available. |
| | SureSelect Hyb 2 | Not available. |
| | SureSelect Hyb 4 | Not available. |
| | SureSelect Binding Buffer | Not available. |
| | SureSelect Wash Buffer 1 | Not available. |
| | SureSelect Wash Buffer | Not available. |
| | SureSelect Elution Buffer | Not available. |
| | SureSelect Neutralization Buffer | Not available. |
| Vapor density | : SureSelect Hyb 1 | Not available. |
| | SureSelect Hyb 2 | Not available. |
| | SureSelect Hyb 4 | Not available. |
| | SureSelect Binding Buffer | Not available. |
| | SureSelect Wash Buffer 1 | Not available. |
| | SureSelect Wash Buffer | Not available. |
| | SureSelect Elution Buffer | Not available. |
| | SureSelect Neutralization Buffer | Not available. |
| Relative density | : SureSelect Hyb 1 | Not available. |
| | SureSelect Hyb 2 | Not available. |
| | SureSelect Hyb 4 | Not available. |
| | SureSelect Binding Buffer | Not available. |
| | SureSelect Wash Buffer 1 | Not available. |
| | SureSelect Wash Buffer | Not available. |
| | SureSelect Elution Buffer | Not available. |
| | SureSelect Neutralization Buffer | Not available. |
| Solubility | : SureSelect Hyb 1 | Easily soluble in the following materials: cold water and hot water. |
| | SureSelect Hyb 2 | Easily soluble in the following materials: cold water and hot water. |
| | SureSelect Hyb 4 | Easily soluble in the following materials: cold water and hot water. |
| | 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 | 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. |





Section 9. Physical and chemical properties

| | | |
|---|----------------------------------|----------------|
| Partition coefficient: n-octanol/water | : SureSelect Hyb 1 | Not available. |
| | SureSelect Hyb 2 | Not available. |
| | SureSelect Hyb 4 | Not available. |
| | SureSelect Binding Buffer | Not available. |
| | SureSelect Wash Buffer 1 | Not available. |
| | SureSelect Wash Buffer | Not available. |
| | SureSelect Elution Buffer | Not available. |
| | SureSelect Neutralization Buffer | Not available. |
| Auto-ignition temperature | : SureSelect Hyb 1 | Not available. |
| | SureSelect Hyb 2 | Not available. |
| | SureSelect Hyb 4 | Not available. |
| | SureSelect Binding Buffer | Not available. |
| | SureSelect Wash Buffer 1 | Not available. |
| | SureSelect Wash Buffer | Not available. |
| | SureSelect Elution Buffer | Not available. |
| | SureSelect Neutralization Buffer | Not available. |
| Decomposition temperature | : SureSelect Hyb 1 | Not available. |
| | SureSelect Hyb 2 | Not available. |
| | SureSelect Hyb 4 | Not available. |
| | SureSelect Binding Buffer | Not available. |
| | SureSelect Wash Buffer 1 | Not available. |
| | SureSelect Wash Buffer | Not available. |
| | SureSelect Elution Buffer | Not available. |
| | SureSelect Neutralization Buffer | Not available. |
| Viscosity | : SureSelect Hyb 1 | Not available. |
| | SureSelect Hyb 2 | Not available. |
| | SureSelect Hyb 4 | Not available. |
| | SureSelect Binding Buffer | Not available. |
| | SureSelect Wash Buffer 1 | Not available. |
| | SureSelect Wash Buffer | Not available. |
| | SureSelect Elution Buffer | Not available. |
| | SureSelect Neutralization Buffer | Not available. |

Section 10. Stability and reactivity

| | | |
|------------------------|----------------------------------|--|
| 10.1 Reactivity | : SureSelect Hyb 1 | No specific test data related to reactivity available for this product or its ingredients. |
| | SureSelect Hyb 2 | No specific test data related to reactivity available for this product or its ingredients. |
| | SureSelect Hyb 4 | No specific test data related to reactivity available for this product or its ingredients. |
| | 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 | 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. |

Section 10. Stability and reactivity

| | | |
|--|--|--|
| 10.2 Chemical stability | :  SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer SureSelect Elution Buffer SureSelect Neutralization Buffer | The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. |
| 10.3 Possibility of hazardous reactions | :  SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer SureSelect Elution Buffer SureSelect Neutralization Buffer | Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. |
| 10.4 Conditions to avoid | :  SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer SureSelect Elution Buffer SureSelect Neutralization Buffer | No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. |
| 10.5 Incompatible materials | :  SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 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. 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. |

Section 10. Stability and reactivity

| | | |
|--|----------------------------------|--|
| 10.6 Hazardous decomposition products | : SureSelect Hyb 1 | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| | SureSelect Hyb 2 | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| | SureSelect Hyb 4 | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| | 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 | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| | 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 Hyb 1 Sodium chloride | LD50 Oral | Rat | 3000 mg/kg | - |
| | LD50 Oral | Rat | 8290 mg/kg | - |
| SureSelect Hyb 2 Disodium dihydrogen ethylenediaminetetraacetate | LD50 Oral | Rat | 2 g/kg | - |
| SureSelect Hyb 4 Sulfuric acid monododecyl ester sodium salt (1:1) | LD50 Oral | Rat | 1288 mg/kg | - |
| SureSelect Binding Buffer Sodium chloride | LD50 Oral | Rat | 3000 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------------------|--------------------------|---------|-------|-------------------------|-------------|
| SureSelect Hyb 1 Sodium chloride | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 milligrams | - |
| | Eyes - Moderate irritant | Rabbit | - | 10 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| Sodium dihydrogenorthophosphate | Eyes - Mild irritant | Rabbit | - | 150 milligrams | - |

Section 11. Toxicological information

| | | | | | |
|---|--------------------------|--------|---|-------------------------|---|
| 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

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 |
|--|------------|-------------------|------------------------------|
| SureSelect Hyb 4 Sulfuric acid monododecyl ester sodium salt (1:1) | Category 3 | Not applicable. | Respiratory tract irritation |
| SureSelect Neutralization Buffer 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride | Category 3 | Not applicable. | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|--|------------|-------------------|-------------------|
| SureSelect Hyb 2 Disodium dihydrogen ethylenediaminetetraacetate | Category 2 | Inhalation | respiratory tract |

Aspiration hazard

Not available.

Information on the likely routes of exposure

| | |
|----------------------------------|--|
| SureSelect Hyb 1 | Routes of entry anticipated: Oral, Dermal, Inhalation. |
| SureSelect Hyb 2 | Routes of entry anticipated: Oral, Dermal, Inhalation. |
| SureSelect Hyb 4 | Routes of entry anticipated: Oral, Dermal, Inhalation. |
| SureSelect Binding Buffer | Not available. |
| SureSelect Wash Buffer 1 | Routes of entry anticipated: Oral, Dermal, Inhalation. |
| SureSelect Wash Buffer | Routes of entry anticipated: Oral, Dermal, Inhalation. |
| SureSelect Elution Buffer | Routes of entry anticipated: Oral, Dermal, Inhalation. |
| SureSelect Neutralization Buffer | Routes of entry anticipated: Oral, Dermal, Inhalation. |

Section 11. Toxicological information

Potential acute health effects

| | | |
|---------------------|--|--|
| Eye contact | : SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer SureSelect Elution Buffer SureSelect Neutralization Buffer | Causes serious eye irritation. Causes serious eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes eye irritation. Causes serious eye irritation. |
| Inhalation | : SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 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. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Skin contact | : SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 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. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes skin irritation. |
| Ingestion | : SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 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. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |

Symptoms related to the physical, chemical and toxicological characteristics

| | | |
|--------------------|----------------------------------|--|
| Eye contact | : SureSelect Hyb 1 | Adverse symptoms may include the following: pain or irritation watering redness |
| | SureSelect Hyb 2 | Adverse symptoms may include the following: pain or irritation watering redness |
| | SureSelect Hyb 4 | No specific data. |
| | SureSelect Binding Buffer | No specific data. |
| | SureSelect Wash Buffer 1 | No specific data. |
| | SureSelect Wash Buffer | 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 |

Section 11. Toxicological information

| | | |
|---------------------|--|--|
| Inhalation | : <input checked="" type="checkbox"/> SureSelect Hyb 1 | No specific data. |
| | SureSelect Hyb 2 | No specific data. |
| | SureSelect Hyb 4 | No specific data. |
| | SureSelect Binding Buffer | No specific data. |
| | SureSelect Wash Buffer 1 | No specific data. |
| | SureSelect Wash Buffer | No specific data. |
| | SureSelect Elution Buffer | No specific data. |
| | SureSelect Neutralization Buffer | No specific data. |
| Skin contact | : <input checked="" type="checkbox"/> SureSelect Hyb 1 | No specific data. |
| | SureSelect Hyb 2 | No specific data. |
| | SureSelect Hyb 4 | No specific data. |
| | SureSelect Binding Buffer | No specific data. |
| | SureSelect Wash Buffer 1 | No specific data. |
| | SureSelect Wash Buffer | No specific data. |
| | SureSelect Elution Buffer | No specific data. |
| | SureSelect Neutralization Buffer | Adverse symptoms may include the following: irritation redness |
| Ingestion | : <input checked="" type="checkbox"/> SureSelect Hyb 1 | No specific data. |
| | SureSelect Hyb 2 | No specific data. |
| | SureSelect Hyb 4 | No specific data. |
| | SureSelect Binding Buffer | No specific data. |
| | SureSelect Wash Buffer 1 | No specific data. |
| | SureSelect Wash Buffer | 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 | : <input checked="" type="checkbox"/> SureSelect Hyb 1 | No known significant effects or critical hazards. |
| | SureSelect Hyb 2 | May cause damage to organs through prolonged or repeated exposure. |
| | SureSelect Hyb 4 | No known significant effects or critical hazards. |
| | SureSelect Binding Buffer | No known significant effects or critical hazards. |
| | SureSelect Wash Buffer 1 | No known significant effects or critical hazards. |
| | SureSelect Wash Buffer | 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 | : <input checked="" type="checkbox"/> SureSelect Hyb 1 | No known significant effects or critical hazards. |
| | SureSelect Hyb 2 | No known significant effects or critical hazards. |
| | SureSelect Hyb 4 | No known significant effects or critical hazards. |
| | SureSelect Binding Buffer | No known significant effects or critical hazards. |
| | SureSelect Wash Buffer 1 | No known significant effects or critical hazards. |
| | SureSelect Wash Buffer | 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

| | | |
|------------------------------|--|--|
| Mutagenicity | : <input checked="" type="checkbox"/> SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 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. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Teratogenicity | : <input checked="" type="checkbox"/> SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 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. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Developmental effects | : <input checked="" type="checkbox"/> SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 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. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Fertility effects | : <input checked="" type="checkbox"/> SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 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. 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 |
|---|-----------------------------|
| <input checked="" type="checkbox"/> SureSelect Hyb 1 Oral | 17142.9 mg/kg |
| SureSelect Hyb 2 Oral Inhalation (dusts and mists) | 13698.6 mg/kg 10.27 mg/l |
| SureSelect Hyb 4 Oral Inhalation (dusts and mists) | 128800 mg/kg 150 mg/l |
| SureSelect Binding Buffer Oral | 51770.7 mg/kg |

Section 12. Ecological information

12.1 Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|-------------------------------------|---|----------|
| SureSelect Hyb 1 Sodium chloride Sodium dihydrogenorthophosphate | 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 |
| | Acute LC50 720 ppm Fresh water | Fish - Gambusia affinis - Adult | 96 hours |
| SureSelect Hyb 2 Disodium dihydrogen ethylenediaminetetraacetate | Acute LC50 320 mg/l Fresh water | Fish | 96 hours |
| 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

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|--|--------------------|-----|-----------|
| SureSelect Hyb 2 Disodium dihydrogen ethylenediaminetetraacetate | -4.3 | 1.8 | low |

12.4 Mobility in soil

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

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

Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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

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

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

Section 14. Transport information

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

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

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: Sodium hydroxide; Edetic acid

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

Section 15. Regulatory information

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

| | | |
|-----------------------|--|---|
| Classification | : SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer SureSelect Elution Buffer SureSelect Neutralization Buffer | Immediate (acute) health hazard Immediate (acute) health hazard Delayed (chronic) health hazard Not applicable. Not applicable. Not applicable. Not applicable. Immediate (acute) health hazard Immediate (acute) health hazard |
|-----------------------|--|---|

Composition/information on ingredients

| Name | % | Fire hazard | Sudden release of pressure | Reactive | Immediate (acute) health hazard | Delayed (chronic) health hazard |
|---|-----------------|-------------|----------------------------|------------|---------------------------------|---------------------------------|
| SureSelect Hyb 1 Sodium chloride Sodium dihydrogenorthophosphate | ≥10 - ≤25 ≤3 | No. No. | No. No. | No. No. | Yes. Yes. | No. No. |
| SureSelect Hyb 2 Disodium dihydrogen ethylenediaminetetraacetate | ≥10 - ≤25 | No. | No. | No. | Yes. | Yes. |
| SureSelect Hyb 4 Sulfuric acid monododecyl ester sodium salt (1:1) | ≤3 | No. | No. | No. | Yes. | No. |
| SureSelect Binding Buffer Sodium chloride | <10 | No. | No. | No. | Yes. | No. |
| SureSelect Neutralization Buffer 2-Amino-2-(hydroxymethyl)propane-1, 3-diol hydrochloride | ≥10 - <20 | No. | No. | No. | Yes. | No. |

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.

Section 15. Regulatory information

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

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

Section 16. Other information

History

Date of issue : 10/25/2017

Date of previous issue : 02/05/2016.

Version : 4

Indicates information that has changed from previously issued version.

Notice to reader

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