

# SAFETY DATA SHEET



SureVector E. coli C-terminal Tag kit, 5 rxn, Part Number G7518E

## Section 1. Identification

### 1.1 Product identifier

|                                |  |           |
|--------------------------------|--|-----------|
| <b>Product name</b>            | : SureVector E. coli C-terminal Tag kit, 5 rxn, Part Number G7518E |           |
| <b>Part no. (chemical kit)</b> | : G7518E   |           |
| <b>Part no.</b>                | : 5X SureSolution  | 5190-8625 |
|                                | SureVector AmpR Selectable Marker                                  | 5190-8807 |
|                                | SureVector pUC Origin  | 5190-8810 |
|                                | SureVector XP1 Linker  | 5190-8811 |
|                                | SureVector LacI Repressor  | 5190-8812 |
|                                | SureVector T7 E. coli Promoter                                     | 5190-8818 |
|                                | SureVector CBP Expression Tag C-Term                               | 5190-8827 |
|                                | SureVector SBP Expression Tag C-Term                               | 5190-8828 |
|                                | SureVector Thioredoxin Expression Tag C-Term                       | 5190-8829 |
|                                | SureVector LacZ E. coli Control (C-term)                           | 5190-7819 |
|                                | SureVector Enzyme Mix  | 5190-8621 |
|                                | 10X SureVector Buffer  | 5190-8622 |
|                                | dNTP Mix   | 200518-56 |
|                                | DpnI   | 5190-8624 |
| <b>Validation date</b>         | : 3/22/2022  |           |

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

|                      |  |                         |
|----------------------|--|-------------------------|
| <b>Material uses</b> | : Analytical reagent.                        |                         |
|                      | 5X SureSolution                              | 0.1 ml (15 reactions)   |
|                      | SureVector AmpR Selectable Marker            | 0.01 ml (5 reactions)   |
|                      | SureVector pUC Origin                        | 0.01 ml (5 reactions)   |
|                      | SureVector XP1 Linker                        | 0.01 ml (5 reactions)   |
|                      | SureVector LacI Repressor                    | 0.01 ml (5 reactions)   |
|                      | SureVector T7 E. coli Promoter               | 0.01 ml (5 reactions)   |
|                      | SureVector CBP Expression Tag C-Term         | 0.01 ml (5 reactions)   |
|                      | SureVector SBP Expression Tag C-Term         | 0.01 ml (5 reactions)   |
|                      | SureVector Thioredoxin Expression Tag C-Term | 0.01 ml (5 reactions)   |
|                      | SureVector LacZ E. coli Control (C-term)     | 0.01 ml (5 reactions)   |
|                      | SureVector Enzyme Mix                        | 0.015 ml (15 reactions) |
|                      | 10X SureVector Buffer                        | 0.03 ml (15 reactions)  |
|                      | dNTP Mix                                     | 0.03 ml                 |
|                      | DpnI   | 0.015 ml (15 reactions) |

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

|                              |   |
|------------------------------|---|
| <b>Supplier/Manufacturer</b> | : Agilent Technologies, Inc.<br>5301 Stevens Creek Blvd<br>Santa Clara, CA 95051, USA<br>800-227-9770 |
|------------------------------|---|

### 1.4 Emergency telephone number

|                             |                             |
|-----------------------------|-----------------------------|
| <b>In case of emergency</b> | : CHEMTREC®: 1-800-424-9300 |
|-----------------------------|-----------------------------|

## Section 2. Hazards identification

### 2.1 Classification of the substance or mixture

|                        |   |  |
|------------------------|---|--|
| <b>OSHA/HCS status</b> | : 5X SureSolution                               | This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). 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. |
|                        | SureVector AmpR Selectable Marker               | 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.   |
|                        | SureVector pUC Origin                           | 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.   |
|                        | SureVector XP1 Linker                           | 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.   |
|                        | SureVector LacI Repressor                       | 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.   |
|                        | SureVector T7 <i>E. coli</i> Promoter           | 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.   |
|                        | SureVector CBP Expression Tag C-Term            | 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.   |
|                        | SureVector SBP Expression Tag C-Term            | 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.   |
|                        | SureVector Thioredoxin Expression Tag C-Term    | 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.   |
|                        | SureVector LacZ <i>E. coli</i> Control (C-term) | 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.   |
|                        | SureVector Enzyme Mix                           | This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  |

## Section 2. Hazards identification

|                       |  |
|-----------------------|--|
| 10X SureVector Buffer | This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  |
| dNTP Mix              | 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. |
| Dpnl                  | This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  |

### Classification of the substance or mixture

#### **5X SureSolution**

|      |                                |
|------|--------------------------------|
| H227 | FLAMMABLE LIQUIDS - Category 4 |
| H320 | EYE IRRITATION - Category 2B   |

#### **SureVector Enzyme Mix**

|      |                              |
|------|------------------------------|
| H320 | EYE IRRITATION - Category 2B |
|------|------------------------------|

#### **10X SureVector Buffer**

|      |                              |
|------|------------------------------|
| H319 | EYE IRRITATION - Category 2A |
|------|------------------------------|

#### **Dpnl**

|      |                              |
|------|------------------------------|
| H319 | EYE IRRITATION - Category 2A |
|------|------------------------------|

### 2.2 GHS label elements

#### **Hazard pictograms**

: 10X SureVector Buffer



Dpnl



#### **Signal word**

|  |                 |
|--|-----------------|
| : 5X SureSolution                            | Warning         |
| SureVector AmpR Selectable Marker            | No signal word. |
| SureVector pUC Origin                        | No signal word. |
| SureVector XP1 Linker                        | No signal word. |
| SureVector LacI Repressor                    | No signal word. |
| SureVector T7 E. coli Promoter               | No signal word. |
| SureVector CBP Expression Tag C-Term         | No signal word. |
| SureVector SBP Expression Tag C-Term         | No signal word. |
| SureVector Thioredoxin Expression Tag C-Term | No signal word. |
| SureVector LacZ E. coli Control (C-term)     | No signal word. |
| SureVector Enzyme Mix                        | Warning         |
| 10X SureVector Buffer                        | Warning         |
| dNTP Mix                                     | No signal word. |
| Dpnl   | Warning         |

## Section 2. Hazards identification

|                                 |  |   |
|---------------------------------|--|---|
| <b>Hazard statements</b>        | : 5X SureSolution                            | H227 - Combustible liquid.<br>H320 - Causes eye irritation.   |
|                                 | SureVector AmpR Selectable Marker            | No known significant effects or critical hazards.   |
|                                 | SureVector pUC Origin                        | No known significant effects or critical hazards.   |
|                                 | SureVector XP1 Linker                        | No known significant effects or critical hazards.   |
|                                 | SureVector LacI Repressor                    | No known significant effects or critical hazards.   |
|                                 | SureVector T7 E. coli Promoter               | No known significant effects or critical hazards.   |
|                                 | SureVector CBP Expression Tag C-Term         | No known significant effects or critical hazards.   |
|                                 | SureVector SBP Expression Tag C-Term         | No known significant effects or critical hazards.   |
|                                 | SureVector Thioredoxin Expression Tag C-Term | No known significant effects or critical hazards.   |
|                                 | SureVector LacZ E. coli Control (C-term)     | No known significant effects or critical hazards.   |
|                                 | SureVector Enzyme Mix                        | H320 - Causes eye irritation.   |
|                                 | 10X SureVector Buffer                        | H319 - Causes serious eye irritation.   |
|                                 | dNTP Mix                                     | No known significant effects or critical hazards.   |
|                                 | DpnI   | H319 - Causes serious eye irritation.   |
| <br>                            |  |   |
| <b>Precautionary statements</b> |  |   |
| <b>Prevention</b>               | : <del>5</del> X SureSolution                | P210 - Keep away from flames and hot surfaces.<br>No smoking.   |
|                                 | SureVector AmpR Selectable Marker            | Not applicable.   |
|                                 | SureVector pUC Origin                        | Not applicable.   |
|                                 | SureVector XP1 Linker                        | Not applicable.   |
|                                 | SureVector LacI Repressor                    | Not applicable.   |
|                                 | SureVector T7 E. coli Promoter               | Not applicable.   |
|                                 | SureVector CBP Expression Tag C-Term         | Not applicable.   |
|                                 | SureVector SBP Expression Tag C-Term         | Not applicable.   |
|                                 | SureVector Thioredoxin Expression Tag C-Term | Not applicable.   |
|                                 | SureVector LacZ E. coli Control (C-term)     | Not applicable.   |
|                                 | SureVector Enzyme Mix                        | Not applicable.   |
|                                 | 10X SureVector Buffer                        | P280 - Wear eye or face protection.   |
|                                 | dNTP Mix                                     | Not applicable.   |
|                                 | DpnI   | P280 - Wear eye or face protection.   |
| <b>Response</b>                 | : <del>5</del> X SureSolution                | P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P337 + P313 - If eye irritation persists: Get medical advice or attention. |
|                                 | SureVector AmpR Selectable Marker            | Not applicable.   |
|                                 | SureVector pUC Origin                        | Not applicable.   |
|                                 | SureVector XP1 Linker                        | Not applicable.   |
|                                 | SureVector LacI Repressor                    | Not applicable.   |
|                                 | SureVector T7 E. coli Promoter               | Not applicable.   |
|                                 | SureVector CBP Expression Tag C-Term         | Not applicable.   |
|                                 | SureVector SBP Expression Tag C-Term         | Not applicable.   |
|                                 | SureVector Thioredoxin Expression Tag C-Term | Not applicable.   |

## Section 2. Hazards identification

|                 |  |   |
|-----------------|--|---|
|                 | SureVector LacZ E. coli Control (C-term)     | Not applicable.   |
|                 | SureVector Enzyme Mix                        | P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P337 + P313 - If eye irritation persists: Get medical advice or attention. |
|                 | 10X SureVector Buffer                        | P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P337 + P313 - If eye irritation persists: Get medical advice or attention. |
|                 | dNTP Mix                                     | Not applicable.   |
|                 | Dpnl   | P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P337 + P313 - If eye irritation persists: Get medical advice or attention. |
| <b>Storage</b>  | : <del>5X</del> SureSolution                 | P403 + P235 - Store in a well-ventilated place. Keep cool.  |
|                 | SureVector AmpR Selectable Marker            | Not applicable.   |
|                 | SureVector pUC Origin                        | Not applicable.   |
|                 | SureVector XP1 Linker                        | Not applicable.   |
|                 | SureVector LacI Repressor                    | Not applicable.   |
|                 | SureVector T7 E. coli Promoter               | Not applicable.   |
|                 | SureVector CBP Expression Tag C-Term         | Not applicable.   |
|                 | SureVector SBP Expression Tag C-Term         | Not applicable.   |
|                 | SureVector Thioredoxin Expression Tag C-Term | Not applicable.   |
|                 | SureVector LacZ E. coli Control (C-term)     | Not applicable.   |
|                 | SureVector Enzyme Mix                        | Not applicable.   |
|                 | 10X SureVector Buffer                        | Not applicable.   |
|                 | dNTP Mix                                     | Not applicable.   |
|                 | Dpnl   | Not applicable.   |
| <b>Disposal</b> | : 5X SureSolution                            | P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.  |
|                 | SureVector AmpR Selectable Marker            | Not applicable.   |
|                 | SureVector pUC Origin                        | Not applicable.   |
|                 | SureVector XP1 Linker                        | Not applicable.   |
|                 | SureVector LacI Repressor                    | Not applicable.   |
|                 | SureVector T7 E. coli Promoter               | Not applicable.   |
|                 | SureVector CBP Expression Tag C-Term         | Not applicable.   |
|                 | SureVector SBP Expression Tag C-Term         | Not applicable.   |
|                 | SureVector Thioredoxin Expression Tag C-Term | Not applicable.   |
|                 | SureVector LacZ E. coli Control (C-term)     | Not applicable.   |
|                 | SureVector Enzyme Mix                        | Not applicable.   |

## Section 2. Hazards identification

|                                    |   |  |                 |
|------------------------------------|---|--|-----------------|
| <b>Supplemental label elements</b> | : | 10X SureVector Buffer                        | Not applicable. |
|                                    |   | dNTP Mix                                     | Not applicable. |
|                                    |   | DpnI   | Not applicable. |
|                                    |   | 5X SureSolution                              | None known.     |
|                                    |   | SureVector AmpR Selectable Marker            | None known.     |
|                                    |   | SureVector pUC Origin                        | None known.     |
|                                    |   | SureVector XP1 Linker                        | None known.     |
|                                    |   | SureVector LacI Repressor                    | None known.     |
|                                    |   | SureVector T7 E. coli Promoter               | None known.     |
|                                    |   | SureVector CBP Expression Tag C-Term         | None known.     |
|                                    |   | SureVector SBP Expression Tag C-Term         | None known.     |
|                                    |   | SureVector Thioredoxin Expression Tag C-Term | None known.     |
|                                    |   | SureVector LacZ E. coli Control (C-term)     | None known.     |
|                                    |   | SureVector Enzyme Mix                        | None known.     |

### 2.3 Other hazards

|   |   |  |             |
|---|---|--|-------------|
| <b>Hazards not otherwise classified</b> | : | 5X SureSolution                              | None known. |
|   |   | SureVector AmpR Selectable Marker            | None known. |
|   |   | SureVector pUC Origin                        | None known. |
|   |   | SureVector XP1 Linker                        | None known. |
|   |   | SureVector LacI Repressor                    | None known. |
|   |   | SureVector T7 E. coli Promoter               | None known. |
|   |   | SureVector CBP Expression Tag C-Term         | None known. |
|   |   | SureVector SBP Expression Tag C-Term         | None known. |
|   |   | SureVector Thioredoxin Expression Tag C-Term | None known. |
|   |   | SureVector LacZ E. coli Control (C-term)     | None known. |
|   |   | SureVector Enzyme Mix                        | None known. |
|   |   | 10X SureVector Buffer                        | None known. |
|   |   | dNTP Mix                                     | None known. |
|   |   | DpnI   | None known. |

## Section 3. Composition/information on ingredients

|                          |   |  |           |
|--------------------------|---|--|-----------|
| <b>Substance/mixture</b> | : | 5X SureSolution                              | Substance |
|                          |   | SureVector AmpR Selectable Marker            | Mixture   |
|                          |   | SureVector pUC Origin                        | Mixture   |
|                          |   | SureVector XP1 Linker                        | Mixture   |
|                          |   | SureVector LacI Repressor                    | Mixture   |
|                          |   | SureVector T7 E. coli Promoter               | Mixture   |
|                          |   | SureVector CBP Expression Tag C-Term         | Mixture   |
|                          |   | SureVector SBP Expression Tag C-Term         | Mixture   |
|                          |   | SureVector Thioredoxin Expression Tag C-Term | Mixture   |
|                          |   | SureVector LacZ E. coli Control (C-term)     | Mixture   |
|                          |   | SureVector Enzyme Mix                        | Mixture   |

## Section 3. Composition/information on ingredients

|                       |         |
|-----------------------|---------|
| 10X SureVector Buffer | Mixture |
| dNTP Mix              | Mixture |
| Dpnl                  | Mixture |

| Ingredient name   | %         | CAS number |
|---|-----------|------------|
| <b>5X SureSolution</b><br>Dimethyl sulfoxide  | 100       | 67-68-5    |
| <b>SureVector Enzyme Mix</b><br>Glycerol  | ≥50 - ≤75 | 56-81-5    |
| Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy- | <0.25     | 9036-19-5  |
| <b>10X SureVector Buffer</b><br>Potassium chloride                                    | ≤5        | 7447-40-7  |
| Ammonium sulphate   | ≤3        | 7783-20-2  |
| Polyoxyethylene octyl phenyl ether  | <2.5      | 9002-93-1  |
| <b>Dpnl</b><br>Glycerol   | ≥50 - ≤75 | 56-81-5    |
| Sodium chloride   | ≤3        | 7647-14-5  |

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 and hence require reporting in this section.**

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

## Section 4. First aid measures

### 4.1 Description of necessary first aid measures

|                    |                                      |   |
|--------------------|--------------------------------------|---|
| <b>Eye contact</b> | : 5X SureSolution                    | 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. |
|                    | SureVector AmpR Selectable Marker    | 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.   |
|                    | SureVector pUC Origin                | 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.   |
|                    | SureVector XP1 Linker                | 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.   |
|                    | SureVector LacI Repressor            | 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.   |
|                    | SureVector T7 E. coli Promoter       | 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.   |
|                    | SureVector CBP Expression Tag C-Term | 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.   |

## Section 4. First aid measures

|   |  |
|---|--|
| SureVector SBP Expression Tag C-Term            | 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.  |
| SureVector Thioredoxin Expression Tag C-Term    | 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.  |
| SureVector LacZ <i>E. coli</i> Control (C-term) | 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.  |
| SureVector Enzyme Mix                           | 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.  |
| 10X SureVector 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.  |
| dNTP Mix  | 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.  |
| Dpnl  | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.  |
| <b>Inhalation</b> : 5X SureSolution             | 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. |
| SureVector AmpR Selectable Marker               | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.  |
| SureVector pUC Origin                           | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.  |
| SureVector XP1 Linker                           | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.  |
| SureVector LacI Repressor                       | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.  |
| SureVector T7 <i>E. coli</i> Promoter           | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.  |
| SureVector CBP Expression Tag C-Term            | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical   |

## Section 4. First aid measures

|   |  |
|---|--|
| SureVector SBP Expression Tag C-Term            | 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.   |
| SureVector Thioredoxin Expression Tag C-Term    | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.  |
| SureVector LacZ <i>E. coli</i> Control (C-term) | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.  |
| SureVector Enzyme Mix                           | 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.   |
| 10X SureVector 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. |
| dNTP Mix  | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.  |
| DpnI  | Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.   |

## Section 4. First aid measures

|                     |  |   |
|---------------------|--|---|
| <b>Skin contact</b> | : 5X SureSolution                            | 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.   |
|                     | SureVector AmpR Selectable Marker            | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
|                     | SureVector pUC Origin                        | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
|                     | SureVector XP1 Linker                        | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
|                     | SureVector LacI Repressor                    | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
|                     | SureVector T7 E. coli Promoter               | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
|                     | SureVector CBP Expression Tag C-Term         | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
|                     | SureVector SBP Expression Tag C-Term         | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
|                     | SureVector Thioredoxin Expression Tag C-Term | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
|                     | SureVector LacZ E. coli Control (C-term)     | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
|                     | SureVector Enzyme Mix                        | 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.   |
|                     | 10X SureVector Buffer                        | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.   |
|                     | dNTP Mix                                     | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
|                     | DpnI   | 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.   |
| <b>Ingestion</b>    | : 5X SureSolution                            | Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by |

## Section 4. First aid measures

|   |   |
|---|---|
| SureVector AmpR Selectable Marker               | 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. Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| SureVector pUC Origin                           | Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.  |
| SureVector XP1 Linker                           | Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.  |
| SureVector LacI Repressor                       | Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.  |
| SureVector T7 <i>E. coli</i> Promoter           | Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.  |
| SureVector CBP Expression Tag C-Term            | Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.  |
| SureVector SBP Expression Tag C-Term            | Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.  |
| SureVector Thioredoxin Expression Tag C-Term    | Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.  |
| SureVector LacZ <i>E. coli</i> Control (C-term) | Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.  |
| SureVector Enzyme Mix                           | Wash out mouth with water. Remove dentures if any. If material has been swallowed and the   |

## Section 4. First aid measures

10X SureVector Buffer

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

dNTP Mix

Dpnl

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

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

#### Potential acute health effects

##### Eye contact

: 5X SureSolution  
 SureVector AmpR Selectable Marker  
 SureVector pUC Origin  
 SureVector XP1 Linker  
 SureVector LacI Repressor  
 SureVector T7 E. coli Promoter  
 SureVector CBP Expression Tag C-Term  
 SureVector SBP Expression Tag

Causes 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.

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

|                     |  |   |
|---------------------|--|---|
|                     | C-Term                                   |   |
|                     | SureVector Thioredoxin                   | No known significant effects or critical hazards. |
|                     | Expression Tag C-Term                    |   |
|                     | SureVector LacZ E. coli Control (C-term) | No known significant effects or critical hazards. |
|                     | SureVector Enzyme Mix                    | Causes eye irritation.                            |
|                     | 10X SureVector Buffer                    | Causes serious eye irritation.                    |
|                     | dNTP Mix                                 | No known significant effects or critical hazards. |
|                     | DpnI                                     | Causes serious eye irritation.                    |
| <b>Inhalation</b>   | : 5X SureSolution                        | No known significant effects or critical hazards. |
|                     | SureVector AmpR Selectable Marker        | No known significant effects or critical hazards. |
|                     | SureVector pUC Origin                    | No known significant effects or critical hazards. |
|                     | SureVector XP1 Linker                    | No known significant effects or critical hazards. |
|                     | SureVector LacI Repressor                | No known significant effects or critical hazards. |
|                     | SureVector T7 E. coli Promoter           | No known significant effects or critical hazards. |
|                     | SureVector CBP Expression Tag C-Term     | No known significant effects or critical hazards. |
|                     | SureVector SBP Expression Tag C-Term     | No known significant effects or critical hazards. |
|                     | SureVector Thioredoxin                   | No known significant effects or critical hazards. |
|                     | Expression Tag C-Term                    |   |
|                     | SureVector LacZ E. coli Control (C-term) | No known significant effects or critical hazards. |
|                     | SureVector Enzyme Mix                    | No known significant effects or critical hazards. |
|                     | 10X SureVector Buffer                    | No known significant effects or critical hazards. |
|                     | dNTP Mix                                 | No known significant effects or critical hazards. |
|                     | DpnI                                     | No known significant effects or critical hazards. |
| <b>Skin contact</b> | : 5X SureSolution                        | No known significant effects or critical hazards. |
|                     | SureVector AmpR Selectable Marker        | No known significant effects or critical hazards. |
|                     | SureVector pUC Origin                    | No known significant effects or critical hazards. |
|                     | SureVector XP1 Linker                    | No known significant effects or critical hazards. |
|                     | SureVector LacI Repressor                | No known significant effects or critical hazards. |
|                     | SureVector T7 E. coli Promoter           | No known significant effects or critical hazards. |
|                     | SureVector CBP Expression Tag C-Term     | No known significant effects or critical hazards. |
|                     | SureVector SBP Expression Tag C-Term     | No known significant effects or critical hazards. |
|                     | SureVector Thioredoxin                   | No known significant effects or critical hazards. |
|                     | Expression Tag C-Term                    |   |
|                     | SureVector LacZ E. coli Control (C-term) | No known significant effects or critical hazards. |
|                     | SureVector Enzyme Mix                    | No known significant effects or critical hazards. |
|                     | 10X SureVector Buffer                    | No known significant effects or critical hazards. |
|                     | dNTP Mix                                 | No known significant effects or critical hazards. |
|                     | DpnI                                     | No known significant effects or critical hazards. |
| <b>Ingestion</b>    | : 5X SureSolution                        | No known significant effects or critical hazards. |
|                     | SureVector AmpR Selectable Marker        | No known significant effects or critical hazards. |
|                     | SureVector pUC Origin                    | No known significant effects or critical hazards. |
|                     | SureVector XP1 Linker                    | No known significant effects or critical hazards. |
|                     | SureVector LacI Repressor                | No known significant effects or critical hazards. |
|                     | SureVector T7 E. coli Promoter           | No known significant effects or critical hazards. |
|                     | SureVector CBP Expression Tag C-Term     | No known significant effects or critical hazards. |
|                     | SureVector SBP Expression Tag C-Term     | No known significant effects or critical hazards. |
|                     | SureVector Thioredoxin                   | No known significant effects or critical hazards. |
|                     | Expression Tag C-Term                    |   |

## Section 4. First aid measures

|  |  |  |
|--|--|--|
|  | SureVector LacZ E. coli Control (C-term)     | No known significant effects or critical hazards.  |
|  | SureVector Enzyme Mix                        | No known significant effects or critical hazards.  |
|  | 10X SureVector Buffer                        | No known significant effects or critical hazards.  |
|  | dNTP Mix                                     | No known significant effects or critical hazards.  |
|  | DpnI   | No known significant effects or critical hazards.  |
| <b><u>Over-exposure signs/symptoms</u></b> |  |  |
| <b>Eye contact</b>                         | : 5X SureSolution                            | Adverse symptoms may include the following:<br>irritation<br>watering<br>redness         |
|  | SureVector AmpR Selectable Marker            | No specific data.  |
|  | SureVector pUC Origin                        | No specific data.  |
|  | SureVector XP1 Linker                        | No specific data.  |
|  | SureVector LacI Repressor                    | No specific data.  |
|  | SureVector T7 E. coli Promoter               | No specific data.  |
|  | SureVector CBP Expression Tag C-Term         | No specific data.  |
|  | SureVector SBP Expression Tag C-Term         | No specific data.  |
|  | SureVector Thioredoxin Expression Tag C-Term | No specific data.  |
|  | SureVector LacZ E. coli Control (C-term)     | No specific data.  |
|  | SureVector Enzyme Mix                        | Adverse symptoms may include the following:<br>irritation<br>watering<br>redness         |
|  | 10X SureVector Buffer                        | Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness |
|  | dNTP Mix                                     | No specific data.  |
|  | DpnI   | Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness |
| <b>Inhalation</b>                          | : 5X SureSolution                            | No specific data.  |
|  | SureVector AmpR Selectable Marker            | No specific data.  |
|  | SureVector pUC Origin                        | No specific data.  |
|  | SureVector XP1 Linker                        | No specific data.  |
|  | SureVector LacI Repressor                    | No specific data.  |
|  | SureVector T7 E. coli Promoter               | No specific data.  |
|  | SureVector CBP Expression Tag C-Term         | No specific data.  |
|  | SureVector SBP Expression Tag C-Term         | No specific data.  |
|  | SureVector Thioredoxin Expression Tag C-Term | No specific data.  |
|  | SureVector LacZ E. coli Control (C-term)     | No specific data.  |
|  | SureVector Enzyme Mix                        | No specific data.  |
|  | 10X SureVector Buffer                        | No specific data.  |
|  | dNTP Mix                                     | No specific data.  |
|  | DpnI   | No specific data.  |

## Section 4. First aid measures

|  |  |                   |
|--|--|-------------------|
| <b>Skin contact</b>                          | : 5X SureSolution                            | No specific data. |
|  | SureVector AmpR Selectable Marker            | No specific data. |
|  | SureVector pUC Origin                        | No specific data. |
|  | SureVector XP1 Linker                        | No specific data. |
|  | SureVector LacI Repressor                    | No specific data. |
|  | SureVector T7 E. coli Promoter               | No specific data. |
|  | SureVector CBP Expression Tag C-Term         | No specific data. |
|  | SureVector SBP Expression Tag C-Term         | No specific data. |
|  | SureVector Thioredoxin Expression Tag C-Term | No specific data. |
|  | SureVector LacZ E. coli Control (C-term)     | No specific data. |
|  | SureVector Enzyme Mix                        | No specific data. |
|  | 10X SureVector Buffer                        | No specific data. |
|  | dNTP Mix                                     | No specific data. |
|  | DpnI   | No specific data. |
|  | <b>Ingestion</b>                             | : 5X SureSolution |
| SureVector AmpR Selectable Marker            |  | No specific data. |
| SureVector pUC Origin                        |  | No specific data. |
| SureVector XP1 Linker                        |  | No specific data. |
| SureVector LacI Repressor                    |  | No specific data. |
| SureVector T7 E. coli Promoter               |  | No specific data. |
| SureVector CBP Expression Tag C-Term         |  | No specific data. |
| SureVector SBP Expression Tag C-Term         |  | No specific data. |
| SureVector Thioredoxin Expression Tag C-Term |  | No specific data. |
| SureVector LacZ E. coli Control (C-term)     |  | No specific data. |
| SureVector Enzyme Mix                        |  | No specific data. |
| 10X SureVector Buffer                        |  | No specific data. |
| dNTP Mix                                     |  | No specific data. |
| DpnI   |  | No specific data. |

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

|                           |                                   |   |
|---------------------------|-----------------------------------|---|
| <b>Notes to physician</b> | : 5X SureSolution                 | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
|                           | SureVector AmpR Selectable Marker | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
|                           | SureVector pUC Origin             | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
|                           | SureVector XP1 Linker             | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
|                           | SureVector LacI Repressor         | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
|                           | SureVector T7 E. coli Promoter    | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
|                           | SureVector CBP Expression Tag     | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
|                           | SureVector SBP Expression Tag     | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |

## Section 4. First aid measures

|                                   |   |  |
|-----------------------------------|---|--|
|                                   | C-Term  | specialist immediately if large quantities have been ingested or inhaled.  |
|                                   | SureVector SBP Expression Tag<br>C-Term         | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.  |
|                                   | SureVector Thioredoxin<br>Expression Tag C-Term | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.  |
|                                   | SureVector LacZ E. coli Control (C-term)        | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.  |
|                                   | SureVector Enzyme Mix                           | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.  |
|                                   | 10X SureVector 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.      |
|                                   | dNTP Mix  | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.  |
|                                   | Dpnl  | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.  |
| <b>Specific treatments</b>        | : 5X SureSolution                               | No specific treatment.   |
|                                   | SureVector AmpR Selectable<br>Marker            | No specific treatment.   |
|                                   | SureVector pUC Origin                           | No specific treatment.   |
|                                   | SureVector XP1 Linker                           | No specific treatment.   |
|                                   | SureVector LacI Repressor                       | No specific treatment.   |
|                                   | SureVector T7 E. coli Promoter                  | No specific treatment.   |
|                                   | SureVector CBP Expression Tag<br>C-Term         | No specific treatment.   |
|                                   | SureVector SBP Expression Tag<br>C-Term         | No specific treatment.   |
|                                   | SureVector Thioredoxin<br>Expression Tag C-Term | No specific treatment.   |
|                                   | SureVector LacZ E. coli Control (C-term)        | No specific treatment.   |
|                                   | SureVector Enzyme Mix                           | No specific treatment.   |
|                                   | 10X SureVector Buffer                           | No specific treatment.   |
|                                   | dNTP Mix  | No specific treatment.   |
|                                   | Dpnl  | No specific treatment.   |
| <b>Protection of first-aiders</b> | : 5X SureSolution                               | 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. |
|                                   | SureVector AmpR Selectable<br>Marker            | No action shall be taken involving any personal risk or without suitable training.   |
|                                   | SureVector pUC Origin                           | No action shall be taken involving any personal risk or without suitable training.   |
|                                   | SureVector XP1 Linker                           | No action shall be taken involving any personal risk or without suitable training.   |
|                                   | SureVector LacI Repressor                       | No action shall be taken involving any personal risk or without suitable training.   |
|                                   | SureVector T7 E. coli Promoter                  | No action shall be taken involving any personal risk or without suitable training.   |
|                                   | SureVector CBP Expression Tag<br>C-Term         | No action shall be taken involving any personal risk or without suitable training.   |
|                                   | SureVector SBP Expression Tag                   | No action shall be taken involving any personal risk   |

## Section 4. First aid measures

|   |  |
|---|--|
| C-Term  | or without suitable training.  |
| SureVector Thioredoxin                          | No action shall be taken involving any personal risk or without suitable training.   |
| Expression Tag C-Term                           | No action shall be taken involving any personal risk or without suitable training.   |
| SureVector LacZ <i>E. coli</i> Control (C-term) | 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. |
| SureVector Enzyme Mix                           | 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. |
| 10X SureVector 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. |
| dNTP Mix  | No action shall be taken involving any personal risk or without suitable training.   |
| Dpnl  | 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

|   |  |
|---|--|
| : 5X SureSolution                               | Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam. |
| SureVector AmpR Selectable Marker               | Use an extinguishing agent suitable for the surrounding fire.  |
| SureVector pUC Origin                           | Use an extinguishing agent suitable for the surrounding fire.  |
| SureVector XP1 Linker                           | Use an extinguishing agent suitable for the surrounding fire.  |
| SureVector LacI Repressor                       | Use an extinguishing agent suitable for the surrounding fire.  |
| SureVector T7 <i>E. coli</i> Promoter           | Use an extinguishing agent suitable for the surrounding fire.  |
| SureVector CBP Expression Tag C-Term            | Use an extinguishing agent suitable for the surrounding fire.  |
| SureVector SBP Expression Tag C-Term            | Use an extinguishing agent suitable for the surrounding fire.  |
| SureVector Thioredoxin Expression Tag C-Term    | Use an extinguishing agent suitable for the surrounding fire.  |
| SureVector LacZ <i>E. coli</i> Control (C-term) | Use an extinguishing agent suitable for the surrounding fire.  |
| SureVector Enzyme Mix                           | Use an extinguishing agent suitable for the surrounding fire.  |
| 10X SureVector Buffer                           | Use an extinguishing agent suitable for the surrounding fire.  |
| dNTP Mix  | Use an extinguishing agent suitable for the surrounding fire.  |
| Dpnl  | Use an extinguishing agent suitable for the surrounding fire.  |

#### Unsuitable extinguishing media

|                                       |                       |
|---------------------------------------|-----------------------|
| : 5X SureSolution                     | Do not use water jet. |
| SureVector AmpR Selectable Marker     | None known.           |
| SureVector pUC Origin                 | None known.           |
| SureVector XP1 Linker                 | None known.           |
| SureVector LacI Repressor             | None known.           |
| SureVector T7 <i>E. coli</i> Promoter | None known.           |
| SureVector CBP Expression Tag         | None known.           |

## Section 5. Fire-fighting measures

|   |             |
|---|-------------|
| C-Term<br>SureVector SBP Expression Tag                   | None known. |
| C-Term<br>SureVector Thioredoxin<br>Expression Tag C-Term | None known. |
| SureVector LacZ E. coli Control (C-term)                  | None known. |
| SureVector Enzyme Mix                                     | None known. |
| 10X SureVector Buffer                                     | None known. |
| dNTP Mix  | None known. |
| DpnI  | None known. |

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

#### Specific hazards arising from the chemical

: 5X SureSolution

Combustible liquid. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

SureVector AmpR Selectable Marker

In a fire or if heated, a pressure increase will occur and the container may burst.

SureVector pUC Origin

In a fire or if heated, a pressure increase will occur and the container may burst.

SureVector XP1 Linker

In a fire or if heated, a pressure increase will occur and the container may burst.

SureVector LacI Repressor

In a fire or if heated, a pressure increase will occur and the container may burst.

SureVector T7 E. coli Promoter

In a fire or if heated, a pressure increase will occur and the container may burst.

SureVector CBP Expression Tag C-Term

In a fire or if heated, a pressure increase will occur and the container may burst.

SureVector SBP Expression Tag C-Term

In a fire or if heated, a pressure increase will occur and the container may burst.

SureVector Thioredoxin

In a fire or if heated, a pressure increase will occur and the container may burst.

Expression Tag C-Term

SureVector LacZ E. coli Control (C-term)

In a fire or if heated, a pressure increase will occur and the container may burst.

SureVector Enzyme Mix

In a fire or if heated, a pressure increase will occur and the container may burst.

10X SureVector Buffer

In a fire or if heated, a pressure increase will occur and the container may burst.

dNTP Mix

In a fire or if heated, a pressure increase will occur and the container may burst.

DpnI

In a fire or if heated, a pressure increase will occur and the container may burst.

#### Hazardous thermal decomposition products

: 5X SureSolution

Decomposition products may include the following materials:

carbon dioxide  
carbon monoxide  
sulfur oxides

SureVector AmpR Selectable Marker

No specific data.

SureVector pUC Origin

No specific data.

SureVector XP1 Linker

No specific data.

SureVector LacI Repressor

No specific data.

SureVector T7 E. coli Promoter

No specific data.

SureVector CBP Expression Tag

No specific data.

## Section 5. Fire-fighting measures

|   |   |
|---|---|
| C-Term<br>SureVector SBP Expression Tag                   | No specific data.   |
| C-Term<br>SureVector Thioredoxin<br>Expression Tag C-Term | No specific data.   |
| SureVector LacZ E. coli Control (C-term)                  | No specific data.   |
| SureVector Enzyme Mix                                     | Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide  |
| 10X SureVector Buffer                                     | Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>nitrogen oxides<br>sulfur oxides<br>halogenated compounds<br>metal oxide/oxides |
| dNTP Mix  | No specific data.   |
| DpnI  | Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>halogenated compounds<br>metal oxide/oxides                                     |

### 5.3 Advice for firefighters

#### Special protective actions for fire-fighters

|                                      |  |
|--------------------------------------|--|
| 5X SureSolution                      | 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. |
| SureVector AmpR Selectable Marker    | 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.  |
| SureVector pUC Origin                | 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.  |
| SureVector XP1 Linker                | 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.  |
| SureVector LacI Repressor            | 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.  |
| SureVector T7 E. coli Promoter       | 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.  |
| SureVector CBP Expression Tag C-Term | 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.  |
| SureVector SBP Expression Tag C-Term | 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

action shall be taken involving any personal risk or without suitable training.

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

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.

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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.

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

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

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus

SureVector Thioredoxin Expression Tag C-Term

SureVector LacZ E. coli Control (C-term)

SureVector Enzyme Mix

10X SureVector Buffer

dNTP Mix

Dpnl

**Special protective equipment for fire-fighters**

: 5X SureSolution

SureVector AmpR Selectable Marker

SureVector pUC Origin

SureVector XP1 Linker

SureVector LacI Repressor

SureVector T7 E. coli Promoter

SureVector CBP Expression Tag C-Term

SureVector SBP Expression Tag C-Term

SureVector Thioredoxin Expression Tag C-Term

## Section 5. Fire-fighting measures

|  |  |
|--|--|
| SureVector LacZ E. coli Control (C-term) | (SCBA) with a full face-piece operated in positive pressure mode.<br>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |
| SureVector Enzyme Mix                    | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.  |
| 10X SureVector Buffer                    | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.  |
| dNTP Mix                                 | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.  |
| DpnI                                     | 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**

: 5X SureSolution

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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate 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.

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.

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.

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.

SureVector AmpR Selectable Marker

SureVector pUC Origin

SureVector XP1 Linker

SureVector LacI Repressor

## Section 6. Accidental release measures

|  |  |
|--|--|
| SureVector T7 E. coli Promoter               | 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.  |
| SureVector CBP Expression Tag C-Term         | 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.  |
| SureVector SBP Expression Tag C-Term         | 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.  |
| SureVector Thioredoxin Expression Tag C-Term | 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.  |
| SureVector LacZ E. coli Control (C-term)     | 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.  |
| SureVector Enzyme Mix                        | 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. |
| 10X SureVector 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. |
| dNTP Mix                                     | 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.  |
| Dpnl   | 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  |



## Section 6. Accidental release measures

|                                      |   |   |
|--------------------------------------|---|---|
| <b>6.2 Environmental precautions</b> | : 5X SureSolution                               | 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). |
|                                      | SureVector AmpR Selectable Marker               | 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). |
|                                      | SureVector pUC Origin                           | 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). |
|                                      | SureVector XP1 Linker                           | 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). |
|                                      | SureVector LacI Repressor                       | 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). |
|                                      | SureVector T7 <i>E. coli</i> Promoter           | 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). |
|                                      | SureVector CBP Expression Tag C-Term            | 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). |
|                                      | SureVector SBP Expression Tag C-Term            | 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). |
|                                      | SureVector Thioredoxin Expression Tag C-Term    | 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). |
|                                      | SureVector LacZ <i>E. coli</i> Control (C-term) | 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). |
|                                      | SureVector Enzyme Mix                           | 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). |
|                                      | 10X SureVector 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

|          |   |
|----------|---|
| dNTP Mix | 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). |
| DpnI     | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |

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

**Methods for cleaning up** : 5X SureSolution

|                                       |  |
|---------------------------------------|--|
| SureVector AmpR Selectable Marker     | Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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. |
| SureVector pUC Origin                 | 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.  |
| SureVector XP1 Linker                 | 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.  |
| SureVector LacI Repressor             | 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.  |
| SureVector T7 <i>E. coli</i> Promoter | 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.  |
| SureVector CBP Expression Tag C-Term  | 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.  |
| SureVector SBP Expression Tag C-Term  | 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.   |

## Section 6. Accidental release measures

|  |   |
|--|---|
| SureVector Thioredoxin Expression Tag C-Term | disposal container. Dispose of via a licensed waste disposal contractor.<br>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. |
| SureVector LacZ E. coli Control (C-term)     | 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.   |
| SureVector Enzyme Mix                        | Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.   |
| 10X SureVector 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.   |
| dNTP Mix                                     | 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.   |
| Dpnl   | Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.   |

## Section 7. Handling and storage

### 7.1 Precautions for safe handling

**Protective measures** : 5X SureSolution

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.

SureVector AmpR Selectable Marker

Put on appropriate personal protective equipment (see Section 8).

## Section 7. Handling and storage

|   |   |
|---|---|
| SureVector pUC Origin                           | Put on appropriate personal protective equipment (see Section 8).   |
| SureVector XP1 Linker                           | Put on appropriate personal protective equipment (see Section 8).   |
| SureVector LacI Repressor                       | Put on appropriate personal protective equipment (see Section 8).   |
| SureVector T7 <i>E. coli</i> Promoter           | Put on appropriate personal protective equipment (see Section 8).   |
| SureVector CBP Expression Tag C-Term            | Put on appropriate personal protective equipment (see Section 8).   |
| SureVector SBP Expression Tag C-Term            | Put on appropriate personal protective equipment (see Section 8).   |
| SureVector Thioredoxin Expression Tag C-Term    | Put on appropriate personal protective equipment (see Section 8).   |
| SureVector LacZ <i>E. coli</i> Control (C-term) | Put on appropriate personal protective equipment (see Section 8).   |
| SureVector Enzyme Mix                           | 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. |
| 10X SureVector 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. |
| dNTP Mix  | Put on appropriate personal protective equipment (see Section 8).   |
| DpnI  | 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. |
| <b>Advice on general occupational hygiene</b>   |   |
| : 5X SureSolution                               | 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.                                   |
| SureVector AmpR Selectable Marker               | 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.                                   |
| SureVector pUC Origin                           | 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   |

## Section 7. Handling and storage

|   |   |
|---|---|
| SureVector XP1 Linker                           | contaminated clothing and protective equipment 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. |
| SureVector LacI Repressor                       | 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.   |
| SureVector T7 <i>E. coli</i> Promoter           | 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.   |
| SureVector CBP Expression Tag C-Term            | 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.   |
| SureVector SBP Expression Tag C-Term            | 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.   |
| SureVector Thioredoxin Expression Tag C-Term    | 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.   |
| SureVector LacZ <i>E. coli</i> Control (C-term) | 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.   |
| SureVector Enzyme Mix                           | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.   |
| 10X SureVector Buffer                           | Eating, drinking and smoking should be prohibited   |

## Section 7. Handling and storage

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. 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.

dNTP Mix

Dpnl

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

: 5X SureSolution

Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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.

SureVector AmpR Selectable Marker

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.

SureVector pUC Origin

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.

SureVector XP1 Linker

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from

## Section 7. Handling and storage

|  |   |
|--|---|
| SureVector LacI Repressor                    | <p>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> <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> |
| SureVector T7 <i>E. coli</i> Promoter        | <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>   |
| SureVector CBP Expression Tag C-Term         | <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>   |
| SureVector SBP Expression Tag C-Term         | <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>   |
| SureVector Thioredoxin Expression Tag C-Term | <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</p>   |

## Section 7. Handling and storage

SureVector LacZ *E. coli* Control (C-term)

containers. Use appropriate containment to avoid environmental contamination. See Section 10 for 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.

SureVector Enzyme Mix

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.

10X SureVector Buffer

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

dNTP Mix

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.

Dpnl

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



## Section 8. Exposure controls/personal protection

|   |   |
|---|---|
| <p>Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-</p> <p><b>10X SureVector Buffer</b><br/>Potassium chloride<br/>Ammonium sulphate<br/>Polyoxyethylene octyl phenyl ether</p> <p><b>Dpnl</b><br/>Glycerol</p> <p>Sodium chloride</p> | <p>None.</p> <p>None.<br/>None.<br/>None.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b><br/>TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction<br/>TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Total dust<br/><b>OSHA PEL (United States, 5/2018).</b><br/>TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction<br/>TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust<br/>None.</p> |
|---|---|

### 8.2 Exposure controls

#### Appropriate engineering controls

- Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

#### Environmental exposure controls

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

### Individual protection measures

#### Hygiene measures

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

#### Eye/face protection

- Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

#### 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 and safety characteristics

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

### Appearance

|  |  |                                   |                    |
|--|--|-----------------------------------|--------------------|
| <b>Physical state</b>                        | : 5X SureSolution                            | Liquid. [Clear.]                  |                    |
|  | SureVector AmpR Selectable Marker            | Liquid.                           |                    |
|  | SureVector pUC Origin                        | Liquid.                           |                    |
|  | SureVector XP1 Linker                        | Liquid.                           |                    |
|  | SureVector LacI Repressor                    | Liquid.                           |                    |
|  | SureVector T7 E. coli Promoter               | Liquid.                           |                    |
|  | SureVector CBP Expression Tag C-Term         | Liquid.                           |                    |
|  | SureVector SBP Expression Tag C-Term         | Liquid.                           |                    |
|  | SureVector Thioredoxin Expression Tag C-Term | Liquid.                           |                    |
|  | SureVector LacZ E. coli Control (C-term)     | Liquid.                           |                    |
|  | SureVector Enzyme Mix                        | Liquid.                           |                    |
|  | 10X SureVector Buffer                        | Liquid.                           |                    |
|  | dNTP Mix                                     | Liquid.                           |                    |
|  | DpnI   | Liquid.                           |                    |
|  | <b>Color</b>                                 | : 5X SureSolution                 | Blue.              |
|  |  | SureVector AmpR Selectable Marker | Not available.     |
| SureVector pUC Origin                        |  | Not available.                    |                    |
| SureVector XP1 Linker                        |  | Not available.                    |                    |
| SureVector LacI Repressor                    |  | Not available.                    |                    |
| SureVector T7 E. coli Promoter               |  | Not available.                    |                    |
| SureVector CBP Expression Tag C-Term         |  | Not available.                    |                    |
| SureVector SBP Expression Tag C-Term         |  | Not available.                    |                    |
| SureVector Thioredoxin Expression Tag C-Term |  | Not available.                    |                    |
| SureVector LacZ E. coli Control (C-term)     |  | Not available.                    |                    |
| SureVector Enzyme Mix                        |  | Not available.                    |                    |
| 10X SureVector Buffer                        |  | Not available.                    |                    |
| dNTP Mix                                     |  | Not available.                    |                    |
| DpnI   |  | Not available.                    |                    |
| <b>Odor</b>                                  |  | : 5X SureSolution                 | Odorless. [Slight] |
|  |  | SureVector AmpR Selectable Marker | Not available.     |
|  | SureVector pUC Origin                        | Not available.                    |                    |
|  | SureVector XP1 Linker                        | Not available.                    |                    |
|  | SureVector LacI Repressor                    | Not available.                    |                    |
|  | SureVector T7 E. coli Promoter               | Not available.                    |                    |
|  | SureVector CBP Expression Tag C-Term         | Not available.                    |                    |
|  | SureVector SBP Expression Tag C-Term         | Not available.                    |                    |
|  | SureVector Thioredoxin Expression Tag C-Term | Not available.                    |                    |
|  | SureVector LacZ E. coli Control (C-term)     | Not available.                    |                    |
|  | SureVector Enzyme Mix                        | Not available.                    |                    |
|  | 10X SureVector Buffer                        | Not available.                    |                    |

## Section 9. Physical and chemical properties and safety characteristics

|                                     |  |                 |
|-------------------------------------|--|-----------------|
|                                     | dNTP Mix                                     | Not available.  |
|                                     | DpnI   | Not available.  |
| <b>Odor threshold</b>               | : 5X SureSolution                            | Not available.  |
|                                     | SureVector AmpR Selectable Marker            | Not available.  |
|                                     | SureVector pUC Origin                        | Not available.  |
|                                     | SureVector XP1 Linker                        | Not available.  |
|                                     | SureVector LacI Repressor                    | Not available.  |
|                                     | SureVector T7 E. coli Promoter               | Not available.  |
|                                     | SureVector CBP Expression Tag C-Term         | Not available.  |
|                                     | SureVector SBP Expression Tag C-Term         | Not available.  |
|                                     | SureVector Thioredoxin Expression Tag C-Term | Not available.  |
|                                     | SureVector LacZ E. coli Control (C-term)     | Not available.  |
|                                     | SureVector Enzyme Mix                        | Not available.  |
|                                     | 10X SureVector Buffer                        | Not available.  |
|                                     | dNTP Mix                                     | Not available.  |
|                                     | DpnI   | Not available.  |
| <b>pH</b>                           | : 5X SureSolution                            | Not available.  |
|                                     | SureVector AmpR Selectable Marker            | 8               |
|                                     | SureVector pUC Origin                        | 8               |
|                                     | SureVector XP1 Linker                        | 8               |
|                                     | SureVector LacI Repressor                    | 8               |
|                                     | SureVector T7 E. coli Promoter               | 8               |
|                                     | SureVector CBP Expression Tag C-Term         | 8               |
|                                     | SureVector SBP Expression Tag C-Term         | 8               |
|                                     | SureVector Thioredoxin Expression Tag C-Term | 8               |
|                                     | SureVector LacZ E. coli Control (C-term)     | 8               |
|                                     | SureVector Enzyme Mix                        | 8.2             |
|                                     | 10X SureVector Buffer                        | 8.8             |
|                                     | dNTP Mix                                     | 7.5             |
|                                     | DpnI   | 7.5             |
| <b>Melting point/freezing point</b> | : 5X SureSolution                            | 18.5°C (65.3°F) |
|                                     | SureVector AmpR Selectable Marker            | 0°C (32°F)      |
|                                     | SureVector pUC Origin                        | 0°C (32°F)      |
|                                     | SureVector XP1 Linker                        | 0°C (32°F)      |
|                                     | SureVector LacI Repressor                    | 0°C (32°F)      |
|                                     | SureVector T7 E. coli Promoter               | 0°C (32°F)      |
|                                     | SureVector CBP Expression Tag C-Term         | 0°C (32°F)      |
|                                     | SureVector SBP Expression Tag C-Term         | 0°C (32°F)      |
|                                     | SureVector Thioredoxin Expression Tag C-Term | 0°C (32°F)      |
|                                     | SureVector LacZ E. coli Control (C-term)     | 0°C (32°F)      |
|                                     | SureVector Enzyme Mix                        | Not available.  |
|                                     | 10X SureVector Buffer                        | Not available.  |
|                                     | dNTP Mix                                     | 0°C (32°F)      |
|                                     | DpnI   | Not available.  |

## Section 9. Physical and chemical properties and safety characteristics

**Boiling point, initial boiling point, and boiling range** :

|  |                 |
|--|-----------------|
| 5X SureSolution                              | 189°C (372.2°F) |
| SureVector AmpR Selectable Marker            | 100°C (212°F)   |
| SureVector pUC Origin                        | 100°C (212°F)   |
| SureVector XP1 Linker                        | 100°C (212°F)   |
| SureVector LacI Repressor                    | 100°C (212°F)   |
| SureVector T7 E. coli Promoter               | 100°C (212°F)   |
| SureVector CBP Expression Tag C-Term         | 100°C (212°F)   |
| SureVector SBP Expression Tag C-Term         | 100°C (212°F)   |
| SureVector Thioredoxin Expression Tag C-Term | 100°C (212°F)   |
| SureVector LacZ E. coli Control (C-term)     | 100°C (212°F)   |
| SureVector Enzyme Mix                        | Not available.  |
| 10X SureVector Buffer                        | Not available.  |
| dNTP Mix                                     | 100°C (212°F)   |
| DpnI   | Not available.  |

**Flash point** :

|  |  |
|--|--|
| 5X SureSolution                              | Closed cup: 87°C (188.6°F) [ASTM D 93]<br>Open cup: 87°C (188.6°F) |
| SureVector AmpR Selectable Marker            | Not available.   |
| SureVector pUC Origin                        | Not available.   |
| SureVector XP1 Linker                        | Not available.   |
| SureVector LacI Repressor                    | Not available.   |
| SureVector T7 E. coli Promoter               | Not available.   |
| SureVector CBP Expression Tag C-Term         | Not available.   |
| SureVector SBP Expression Tag C-Term         | Not available.   |
| SureVector Thioredoxin Expression Tag C-Term | Not available.   |
| SureVector LacZ E. coli Control (C-term)     | Not available.   |
| SureVector Enzyme Mix                        | Not available.   |
| 10X SureVector Buffer                        | Not available.   |
| dNTP Mix                                     | Not available.   |
| DpnI   | Not available.   |

| Ingredient name                          | Closed cup |      |           | Open cup |    |        |
|--|------------|------|-----------|----------|----|--------|
|  | °C         | °F   | Method    | °C       | °F | Method |
| <b>SureVector AmpR Selectable Marker</b> |            |      |           |          |    |        |
| Edetic acid                              | >100       | >212 | DIN 51758 |          |    |        |
| <b>SureVector pUC Origin</b>             |            |      |           |          |    |        |
| Edetic acid                              | >100       | >212 | DIN 51758 |          |    |        |
| <b>SureVector XP1 Linker</b>             |            |      |           |          |    |        |
| Edetic acid                              | >100       | >212 | DIN 51758 |          |    |        |
| <b>SureVector LacI Repressor</b>         |            |      |           |          |    |        |
| Edetic acid                              | >100       | >212 | DIN 51758 |          |    |        |

## Section 9. Physical and chemical properties and safety characteristics

|   |         |        |           |  |  |  |
|---|---------|--------|-----------|--|--|--|
| <b>SureVector T7 E. coli Promoter</b>   |         |        |           |  |  |  |
| Edetic acid   | >100    | >212   | DIN 51758 |  |  |  |
| <b>SureVector CBP Expression Tag C-Term</b>   |         |        |           |  |  |  |
| Edetic acid   | >100    | >212   | DIN 51758 |  |  |  |
| <b>SureVector SBP Expression Tag C-Term</b>   |         |        |           |  |  |  |
| Edetic acid   | >100    | >212   | DIN 51758 |  |  |  |
| <b>SureVector Thioredoxin Expression Tag C-Term</b>                                   |         |        |           |  |  |  |
| Edetic acid   | >100    | >212   | DIN 51758 |  |  |  |
| <b>SureVector LacZ E. coli Control (C-term)</b>                                       |         |        |           |  |  |  |
| Edetic acid   | >100    | >212   | DIN 51758 |  |  |  |
| <b>SureVector Enzyme Mix</b>  |         |        |           |  |  |  |
| Edetic acid   | >100    | >212   | DIN 51758 |  |  |  |
| Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy- | >109.85 | >229.7 |           |  |  |  |
| <b>10X SureVector Buffer</b>  |         |        |           |  |  |  |
| Polyoxyethylene octyl phenyl ether  | >109.85 | >229.7 |           |  |  |  |
| <b>dNTP Mix</b>   |         |        |           |  |  |  |
| Edetic acid   | >100    | >212   | DIN 51758 |  |  |  |
| <b>Dpnl</b>   |         |        |           |  |  |  |
| Edetic acid   | >100    | >212   | DIN 51758 |  |  |  |
| (R*,R*)-1,4-Dimercaptobutane-2,3-diol   | >110    | >230   |           |  |  |  |

**Evaporation rate** : 5X SureSolution 0.026 (butyl acetate = 1)  
 SureVector AmpR Selectable Marker Not available.  
 SureVector pUC Origin Not available.  
 SureVector XP1 Linker Not available.  
 SureVector LacI Repressor Not available.  
 SureVector T7 E. coli Promoter Not available.  
 SureVector CBP Expression Tag C-Term Not available.  
 SureVector SBP Expression Tag C-Term Not available.  
 SureVector Thioredoxin Expression Tag C-Term Not available.  
 SureVector LacZ E. coli Control (C-term) Not available.

## Section 9. Physical and chemical properties and safety characteristics

|   |  |                                 |
|---|--|---------------------------------|
|   | SureVector Enzyme Mix                        | Not available.                  |
|   | 10X SureVector Buffer                        | Not available.                  |
|   | dNTP Mix                                     | Not available.                  |
|   | DpnI   | Not available.                  |
| <b>Flammability</b>                                       | : 5X SureSolution                            | Not applicable.                 |
|   | SureVector AmpR Selectable Marker            | Not applicable.                 |
|   | SureVector pUC Origin                        | Not applicable.                 |
|   | SureVector XP1 Linker                        | Not applicable.                 |
|   | SureVector LacI Repressor                    | Not applicable.                 |
|   | SureVector T7 E. coli Promoter               | Not applicable.                 |
|   | SureVector CBP Expression Tag C-Term         | Not applicable.                 |
|   | SureVector SBP Expression Tag C-Term         | Not applicable.                 |
|   | SureVector Thioredoxin Expression Tag C-Term | Not applicable.                 |
|   | SureVector LacZ E. coli Control (C-term)     | Not applicable.                 |
|   | SureVector Enzyme Mix                        | Not applicable.                 |
|   | 10X SureVector Buffer                        | Not applicable.                 |
|   | dNTP Mix                                     | Not applicable.                 |
|   | DpnI   | Not applicable.                 |
| <b>Lower and upper explosion limit/flammability limit</b> | : 5X SureSolution                            | Lower: 2.6%<br>Upper: 28.5%     |
|   | SureVector AmpR Selectable Marker            | Not available.                  |
|   | SureVector pUC Origin                        | Not available.                  |
|   | SureVector XP1 Linker                        | Not available.                  |
|   | SureVector LacI Repressor                    | Not available.                  |
|   | SureVector T7 E. coli Promoter               | Not available.                  |
|   | SureVector CBP Expression Tag C-Term         | Not available.                  |
|   | SureVector SBP Expression Tag C-Term         | Not available.                  |
|   | SureVector Thioredoxin Expression Tag C-Term | Not available.                  |
|   | SureVector LacZ E. coli Control (C-term)     | Not available.                  |
|   | SureVector Enzyme Mix                        | Not available.                  |
|   | 10X SureVector Buffer                        | Not available.                  |
|   | dNTP Mix                                     | Not available.                  |
|   | DpnI   | Not available.                  |
| <b>Vapor pressure</b>                                     | : 5X SureSolution                            | 0.056 kPa (0.42 mm Hg) [EU A.4] |
|   | SureVector AmpR Selectable Marker            | Not available.                  |
|   | SureVector pUC Origin                        | Not available.                  |
|   | SureVector XP1 Linker                        | Not available.                  |
|   | SureVector LacI Repressor                    | Not available.                  |
|   | SureVector T7 E. coli Promoter               | Not available.                  |
|   | SureVector CBP Expression Tag C-Term         | Not available.                  |
|   | SureVector SBP Expression Tag C-Term         | Not available.                  |
|   | SureVector Thioredoxin Expression Tag C-Term | Not available.                  |
|   | SureVector LacZ E. coli Control (C-term)     | Not available.                  |
|   | SureVector Enzyme Mix                        | Not available.                  |

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10X SureVector Buffer  
dNTP Mix  
DpnI

Not available.  
Not available.  
Not available.

| Ingredient name   | Vapor Pressure at 20°C |           |        | Vapor pressure at 50°C |          |        |
|---|------------------------|-----------|--------|------------------------|----------|--------|
|   | mm Hg                  | kPa       | Method | mm Hg                  | kPa      | Method |
| <b>SureVector AmpR Selectable Marker</b>                |                        |           |        |                        |          |        |
| Water   | 23.8                   | 3.2       |        | 92.258                 | 12.3     |        |
| 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride | 0.000027               | 0.0000036 |        | 0.000007501            | 0.000001 |        |
| <b>SureVector pUC Origin</b>                            |                        |           |        |                        |          |        |
| Water   | 23.8                   | 3.2       |        | 92.258                 | 12.3     |        |
| 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride | 0.000027               | 0.0000036 |        | 0.000007501            | 0.000001 |        |
| <b>SureVector XP1 Linker</b>                            |                        |           |        |                        |          |        |
| Water   | 23.8                   | 3.2       |        | 92.258                 | 12.3     |        |
| 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride | 0.000027               | 0.0000036 |        | 0.000007501            | 0.000001 |        |
| <b>SureVector LacI Repressor</b>                        |                        |           |        |                        |          |        |
| Water   | 23.8                   | 3.2       |        | 92.258                 | 12.3     |        |
| 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride | 0.000027               | 0.0000036 |        | 0.000007501            | 0.000001 |        |
| <b>SureVector T7 E. coli Promoter</b>                   |                        |           |        |                        |          |        |
| Water   | 23.8                   | 3.2       |        | 92.258                 | 12.3     |        |
| 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride | 0.000027               | 0.0000036 |        | 0.000007501            | 0.000001 |        |
| <b>SureVector CBP Expression Tag C-Term</b>             |                        |           |        |                        |          |        |
| Water   | 23.8                   | 3.2       |        | 92.258                 | 12.3     |        |
| 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride | 0.000027               | 0.0000036 |        | 0.000007501            | 0.000001 |        |
| <b>SureVector SBP Expression Tag C-Term</b>             |                        |           |        |                        |          |        |
| Water   | 23.8                   | 3.2       |        | 92.258                 | 12.3     |        |
| 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride | 0.000027               | 0.0000036 |        | 0.000007501            | 0.000001 |        |

## Section 9. Physical and chemical properties and safety characteristics

|   |          |           |  |             |          |
|---|----------|-----------|--|-------------|----------|
| <b>SureVector Thioredoxin Expression Tag C-Term</b>     |          |           |  |             |          |
| Water   | 23.8     | 3.2       |  | 92.258      | 12.3     |
| 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride | 0.000027 | 0.0000036 |  | 0.000007501 | 0.000001 |
| <b>SureVector LacZ E. coli Control (C-term)</b>         |          |           |  |             |          |
| Water   | 23.8     | 3.2       |  | 92.258      | 12.3     |
| 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride | 0.000027 | 0.0000036 |  | 0.000007501 | 0.000001 |
| <b>SureVector Enzyme Mix</b>                            |          |           |  |             |          |
| Water   | 23.8     | 3.2       |  | 92.258      | 12.3     |
| Sorbitan monolaurate, ethoxylated                       | <1       | <0.13     |  |             |          |
| <b>10X SureVector Buffer</b>                            |          |           |  |             |          |
| Water   | 23.8     | 3.2       |  | 92.258      | 12.3     |
| Polyoxyethylene octyl phenyl ether                      | <1       | <0.13     |  |             |          |
| <b>dNTP Mix</b>   |          |           |  |             |          |
| Water   | 23.8     | 3.2       |  | 92.258      | 12.3     |
| 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride | 0.000027 | 0.0000036 |  | 0.000007501 | 0.000001 |
| <b>Dpnl</b>   |          |           |  |             |          |
| Water   | 23.8     | 3.2       |  | 92.258      | 12.3     |
| Glycerol  | 0.000075 | 0.00001   |  | 0.0025      | 0.00033  |

|                               |  |                |
|-------------------------------|--|----------------|
| <b>Relative vapor density</b> | : 5X SureSolution                            | 2.7 [Air = 1]  |
|                               | SureVector AmpR Selectable Marker            | Not available. |
|                               | SureVector pUC Origin                        | Not available. |
|                               | SureVector XP1 Linker                        | Not available. |
|                               | SureVector LacI Repressor                    | Not available. |
|                               | SureVector T7 E. coli Promoter               | Not available. |
|                               | SureVector CBP Expression Tag C-Term         | Not available. |
|                               | SureVector SBP Expression Tag C-Term         | Not available. |
|                               | SureVector Thioredoxin Expression Tag C-Term | Not available. |
|                               | SureVector LacZ E. coli Control (C-term)     | Not available. |
|                               | SureVector Enzyme Mix                        | Not available. |
|                               | 10X SureVector Buffer                        | Not available. |
|                               | dNTP Mix                                     | Not available. |
|                               | Dpnl   | Not available. |

## Section 9. Physical and chemical properties and safety characteristics

|   |  |  |  |
|---|--|--|--|
| <b>Relative density</b>                       | : 5X SureSolution                            | 1.1  |  |
|   | SureVector AmpR Selectable Marker            | Not available.   |  |
|   | SureVector pUC Origin                        | Not available.   |  |
|   | SureVector XP1 Linker                        | Not available.   |  |
|   | SureVector LacI Repressor                    | Not available.   |  |
|   | SureVector T7 E. coli Promoter               | Not available.   |  |
|   | SureVector CBP Expression Tag C-Term         | Not available.   |  |
|   | SureVector SBP Expression Tag C-Term         | Not available.   |  |
|   | SureVector Thioredoxin Expression Tag C-Term | Not available.   |  |
|   | SureVector LacZ E. coli Control (C-term)     | Not available.   |  |
|   | SureVector Enzyme Mix                        | Not available.   |  |
|   | 10X SureVector Buffer                        | Not available.   |  |
|   | dNTP Mix                                     | Not available.   |  |
|   | DpnI   | Not available.   |  |
|   | <b>Solubility</b>                            | : 5X SureSolution  | Easily soluble in the following materials: cold water and hot water. |
|   |  | SureVector AmpR Selectable Marker                                    | Easily soluble in the following materials: cold water and hot water. |
| SureVector pUC Origin                         |  | Easily soluble in the following materials: cold water and hot water. |  |
| SureVector XP1 Linker                         |  | Easily soluble in the following materials: cold water and hot water. |  |
| SureVector LacI Repressor                     |  | Easily soluble in the following materials: cold water and hot water. |  |
| SureVector T7 E. coli Promoter                |  | Easily soluble in the following materials: cold water and hot water. |  |
| SureVector CBP Expression Tag C-Term          |  | Easily soluble in the following materials: cold water and hot water. |  |
| SureVector SBP Expression Tag C-Term          |  | Easily soluble in the following materials: cold water and hot water. |  |
| SureVector Thioredoxin Expression Tag C-Term  |  | Easily soluble in the following materials: cold water and hot water. |  |
| SureVector LacZ E. coli Control (C-term)      |  | Easily soluble in the following materials: cold water and hot water. |  |
| SureVector Enzyme Mix                         |  | Soluble in the following materials: cold water and hot water.        |  |
| 10X SureVector Buffer                         |  | Easily soluble in the following materials: cold water and hot water. |  |
| dNTP Mix                                      |  | Easily soluble in the following materials: cold water and hot water. |  |
| DpnI  |  | Soluble in the following materials: cold water and hot water.        |  |
| <b>Partition coefficient: n-octanol/water</b> |  | : 5X SureSolution  | -1.35  |
|   |  | SureVector AmpR Selectable Marker                                    | Not applicable.  |
|   | SureVector pUC Origin                        | Not applicable.  |  |
|   | SureVector XP1 Linker                        | Not applicable.  |  |
|   | SureVector LacI Repressor                    | Not applicable.  |  |
|   | SureVector T7 E. coli Promoter               | Not applicable.  |  |
|   | SureVector CBP Expression Tag C-Term         | Not applicable.  |  |
|   | SureVector SBP Expression Tag C-Term         | Not applicable.  |  |
|   | SureVector Thioredoxin                       | Not applicable.  |  |

## Section 9. Physical and chemical properties and safety characteristics

|                                  |  |                               |
|----------------------------------|--|-------------------------------|
|                                  | Expression Tag C-Term                        |                               |
|                                  | SureVector LacZ E. coli Control (C-term)     | Not applicable.               |
|                                  | SureVector Enzyme Mix                        | Not applicable.               |
|                                  | 10X SureVector Buffer                        | Not applicable.               |
|                                  | dNTP Mix                                     | Not applicable.               |
|                                  | DpnI   | Not applicable.               |
| <b>Auto-ignition temperature</b> | : 5X SureSolution                            | 300 to 302°C (572 to 575.6°F) |
|                                  | SureVector AmpR Selectable Marker            | Not available.                |
|                                  | SureVector pUC Origin                        | Not available.                |
|                                  | SureVector XP1 Linker                        | Not available.                |
|                                  | SureVector LacI Repressor                    | Not available.                |
|                                  | SureVector T7 E. coli Promoter               | Not available.                |
|                                  | SureVector CBP Expression Tag C-Term         | Not available.                |
|                                  | SureVector SBP Expression Tag C-Term         | Not available.                |
|                                  | SureVector Thioredoxin Expression Tag C-Term | Not available.                |
|                                  | SureVector LacZ E. coli Control (C-term)     | Not available.                |
|                                  | SureVector Enzyme Mix                        | Not available.                |
|                                  | 10X SureVector Buffer                        | Not available.                |
|                                  | dNTP Mix                                     | Not available.                |
|                                  | DpnI   | Not available.                |

| Ingredient name                                     | °C   | °F   | Method   |
|---|------|------|----------|
| <b>SureVector AmpR Selectable Marker</b>            |      |      |          |
| Edetic acid   | >400 | >752 | VDI 2263 |
| <b>SureVector pUC Origin</b>                        |      |      |          |
| Edetic acid   | >400 | >752 | VDI 2263 |
| <b>SureVector XP1 Linker</b>                        |      |      |          |
| Edetic acid   | >400 | >752 | VDI 2263 |
| <b>SureVector LacI Repressor</b>                    |      |      |          |
| Edetic acid   | >400 | >752 | VDI 2263 |
| <b>SureVector T7 E. coli Promoter</b>               |      |      |          |
| Edetic acid   | >400 | >752 | VDI 2263 |
| <b>SureVector CBP Expression Tag C-Term</b>         |      |      |          |
| Edetic acid   | >400 | >752 | VDI 2263 |
| <b>SureVector SBP Expression Tag C-Term</b>         |      |      |          |
| Edetic acid   | >400 | >752 | VDI 2263 |
| <b>SureVector Thioredoxin Expression Tag C-Term</b> |      |      |          |
| Edetic acid   | >400 | >752 | VDI 2263 |

## Section 9. Physical and chemical properties and safety characteristics

|   |      |      |          |
|---|------|------|----------|
| <b>SureVector LacZ E. coli Control (C-term)</b> |      |      |          |
| Edetic acid                                     | >400 | >752 | VDI 2263 |
| <b>SureVector Enzyme Mix</b>                    |      |      |          |
| Glycerol  | 370  | 698  |          |
| Edetic acid                                     | >400 | >752 | VDI 2263 |
| <b>dNTP Mix</b>                                 |      |      |          |
| Edetic acid                                     | >400 | >752 | VDI 2263 |
| <b>DpnI</b>                                     |      |      |          |
| Glycerol  | 370  | 698  |          |
| Edetic acid                                     | >400 | >752 | VDI 2263 |

**Decomposition temperature :** 5X SureSolution 140 to 189°C (284 to 372.2°F)  
 SureVector AmpR Selectable Marker Not available.  
 SureVector pUC Origin Not available.  
 SureVector XP1 Linker Not available.  
 SureVector LacI Repressor Not available.  
 SureVector T7 E. coli Promoter Not available.  
 SureVector CBP Expression Tag C-Term Not available.  
 SureVector SBP Expression Tag C-Term Not available.  
 SureVector Thioredoxin Expression Tag C-Term Not available.  
 SureVector LacZ E. coli Control (C-term) Not available.  
 SureVector Enzyme Mix Not available.  
 10X SureVector Buffer Not available.  
 dNTP Mix Not available.  
 DpnI Not available.

**Viscosity :** 5X SureSolution Dynamic: 2.14 mPa·s (2.14 cP)  
 SureVector AmpR Selectable Marker Not available.  
 SureVector pUC Origin Not available.  
 SureVector XP1 Linker Not available.  
 SureVector LacI Repressor Not available.  
 SureVector T7 E. coli Promoter Not available.  
 SureVector CBP Expression Tag C-Term Not available.  
 SureVector SBP Expression Tag C-Term Not available.  
 SureVector Thioredoxin Expression Tag C-Term Not available.  
 SureVector LacZ E. coli Control (C-term) Not available.  
 SureVector Enzyme Mix Not available.  
 10X SureVector Buffer Not available.  
 dNTP Mix Not available.  
 DpnI Not available.

### Particle characteristics

## Section 9. Physical and chemical properties and safety characteristics

|                             |  |                 |
|-----------------------------|--|-----------------|
| <b>Median particle size</b> | : 5X SureSolution                            | Not applicable. |
|                             | SureVector AmpR Selectable Marker            | Not applicable. |
|                             | SureVector pUC Origin                        | Not applicable. |
|                             | SureVector XP1 Linker                        | Not applicable. |
|                             | SureVector LacI Repressor                    | Not applicable. |
|                             | SureVector T7 E. coli Promoter               | Not applicable. |
|                             | SureVector CBP Expression Tag C-Term         | Not applicable. |
|                             | SureVector SBP Expression Tag C-Term         | Not applicable. |
|                             | SureVector Thioredoxin Expression Tag C-Term | Not applicable. |
|                             | SureVector LacZ E. coli Control (C-term)     | Not applicable. |
|                             | SureVector Enzyme Mix                        | Not applicable. |
|                             | 10X SureVector Buffer                        | Not applicable. |
|                             | dNTP Mix                                     | Not applicable. |
|                             | DpnI   | Not applicable. |

## Section 10. Stability and reactivity

|                                |  |  |
|--------------------------------|--|--|
| <b>10.1 Reactivity</b>         | : 5X SureSolution                            | No specific test data related to reactivity available for this product or its ingredients. |
|                                | SureVector AmpR Selectable Marker            | No specific test data related to reactivity available for this product or its ingredients. |
|                                | SureVector pUC Origin                        | No specific test data related to reactivity available for this product or its ingredients. |
|                                | SureVector XP1 Linker                        | No specific test data related to reactivity available for this product or its ingredients. |
|                                | SureVector LacI Repressor                    | No specific test data related to reactivity available for this product or its ingredients. |
|                                | SureVector T7 E. coli Promoter               | No specific test data related to reactivity available for this product or its ingredients. |
|                                | SureVector CBP Expression Tag C-Term         | No specific test data related to reactivity available for this product or its ingredients. |
|                                | SureVector SBP Expression Tag C-Term         | No specific test data related to reactivity available for this product or its ingredients. |
|                                | SureVector Thioredoxin Expression Tag C-Term | No specific test data related to reactivity available for this product or its ingredients. |
|                                | SureVector LacZ E. coli Control (C-term)     | No specific test data related to reactivity available for this product or its ingredients. |
|                                | SureVector Enzyme Mix                        | No specific test data related to reactivity available for this product or its ingredients. |
|                                | 10X SureVector Buffer                        | No specific test data related to reactivity available for this product or its ingredients. |
|                                | dNTP Mix                                     | No specific test data related to reactivity available for this product or its ingredients. |
|                                | DpnI   | No specific test data related to reactivity available for this product or its ingredients. |
| <b>10.2 Chemical stability</b> | : 5X SureSolution                            | The product is stable.   |
|                                | SureVector AmpR Selectable Marker            | The product is stable.   |
|                                | SureVector pUC Origin                        | The product is stable.   |
|                                | SureVector XP1 Linker                        | The product is stable.   |
|                                | SureVector LacI Repressor                    | The product is stable.   |
|                                | SureVector T7 E. coli Promoter               | The product is stable.   |
|                                | SureVector CBP Expression Tag C-Term         | The product is stable.   |

## Section 10. Stability and reactivity

|  |  |  |
|--|--|--|
|  | SureVector SBP Expression Tag C-Term         | The product is stable.   |
|  | SureVector Thioredoxin Expression Tag C-Term | The product is stable.   |
|  | SureVector LacZ E. coli Control (C-term)     | The product is stable.   |
|  | SureVector Enzyme Mix                        | The product is stable.   |
|  | 10X SureVector Buffer                        | The product is stable.   |
|  | dNTP Mix                                     | The product is stable.   |
|  | DpnI   | The product is stable.   |
| <b>10.3 Possibility of hazardous reactions</b> | : 5X SureSolution                            | Under normal conditions of storage and use, hazardous reactions will not occur.  |
|  | SureVector AmpR Selectable Marker            | Under normal conditions of storage and use, hazardous reactions will not occur.  |
|  | SureVector pUC Origin                        | Under normal conditions of storage and use, hazardous reactions will not occur.  |
|  | SureVector XP1 Linker                        | Under normal conditions of storage and use, hazardous reactions will not occur.  |
|  | SureVector LacI Repressor                    | Under normal conditions of storage and use, hazardous reactions will not occur.  |
|  | SureVector T7 E. coli Promoter               | Under normal conditions of storage and use, hazardous reactions will not occur.  |
|  | SureVector CBP Expression Tag C-Term         | Under normal conditions of storage and use, hazardous reactions will not occur.  |
|  | SureVector SBP Expression Tag C-Term         | Under normal conditions of storage and use, hazardous reactions will not occur.  |
|  | SureVector Thioredoxin Expression Tag C-Term | Under normal conditions of storage and use, hazardous reactions will not occur.  |
|  | SureVector LacZ E. coli Control (C-term)     | Under normal conditions of storage and use, hazardous reactions will not occur.  |
|  | SureVector Enzyme Mix                        | Under normal conditions of storage and use, hazardous reactions will not occur.  |
|  | 10X SureVector Buffer                        | Under normal conditions of storage and use, hazardous reactions will not occur.  |
|  | dNTP Mix                                     | Under normal conditions of storage and use, hazardous reactions will not occur.  |
|  | DpnI   | Under normal conditions of storage and use, hazardous reactions will not occur.  |
| <b>10.4 Conditions to avoid</b>                | : 5X SureSolution                            | Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas. |
|  | SureVector AmpR Selectable Marker            | No specific data.  |
|  | SureVector pUC Origin                        | No specific data.  |
|  | SureVector XP1 Linker                        | No specific data.  |
|  | SureVector LacI Repressor                    | No specific data.  |
|  | SureVector T7 E. coli Promoter               | No specific data.  |
|  | SureVector CBP Expression Tag C-Term         | No specific data.  |
|  | SureVector SBP Expression Tag C-Term         | No specific data.  |
|  | SureVector Thioredoxin Expression Tag C-Term | No specific data.  |
|  | SureVector LacZ E. coli Control (C-term)     | No specific data.  |

## Section 10. Stability and reactivity

|                       |                   |
|-----------------------|-------------------|
| SureVector Enzyme Mix | No specific data. |
| 10X SureVector Buffer | No specific data. |
| dNTP Mix              | No specific data. |
| Dpnl                  | No specific data. |

|                                    |   |   |
|------------------------------------|---|---|
| <b>10.5 Incompatible materials</b> | : 5X SureSolution                               | Reactive or incompatible with the following materials:<br>oxidizing materials |
|                                    | SureVector AmpR Selectable Marker               | May react or be incompatible with oxidizing materials.                        |
|                                    | SureVector pUC Origin                           | May react or be incompatible with oxidizing materials.                        |
|                                    | SureVector XP1 Linker                           | May react or be incompatible with oxidizing materials.                        |
|                                    | SureVector LacI Repressor                       | May react or be incompatible with oxidizing materials.                        |
|                                    | SureVector T7 <i>E. coli</i> Promoter           | May react or be incompatible with oxidizing materials.                        |
|                                    | SureVector CBP Expression Tag C-Term            | May react or be incompatible with oxidizing materials.                        |
|                                    | SureVector SBP Expression Tag C-Term            | May react or be incompatible with oxidizing materials.                        |
|                                    | SureVector Thioredoxin Expression Tag C-Term    | May react or be incompatible with oxidizing materials.                        |
|                                    | SureVector LacZ <i>E. coli</i> Control (C-term) | May react or be incompatible with oxidizing materials.                        |
|                                    | SureVector Enzyme Mix                           | May react or be incompatible with oxidizing materials.                        |
|                                    | 10X SureVector Buffer                           | May react or be incompatible with oxidizing materials.                        |
|                                    | dNTP Mix  | May react or be incompatible with oxidizing materials.                        |
|                                    | Dpnl  | May react or be incompatible with oxidizing materials.                        |

|  |                                       |  |
|--|---------------------------------------|--|
| <b>10.6 Hazardous decomposition products</b> | : 5X SureSolution                     | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
|  | SureVector AmpR Selectable Marker     | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
|  | SureVector pUC Origin                 | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
|  | SureVector XP1 Linker                 | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
|  | SureVector LacI Repressor             | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
|  | SureVector T7 <i>E. coli</i> Promoter | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
|  | SureVector CBP Expression Tag C-Term  | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
|  | SureVector SBP Expression Tag C-Term  | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## Section 10. Stability and reactivity

|  |  |
|--|--|
| SureVector Thioredoxin Expression Tag C-Term | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| SureVector LacZ E. coli Control (C-term)     | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| SureVector Enzyme Mix                        | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| 10X SureVector Buffer                        | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| dNTP Mix                                     | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| Dpnl   | 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 |
|---|--------------------------|------------|----------------------------|----------|
| <b>5X SureSolution</b><br>Dimethyl sulfoxide  | LD50 Dermal<br>LD50 Oral | Rat<br>Rat | 40000 mg/kg<br>14500 mg/kg | -<br>-   |
| <b>SureVector Enzyme Mix</b><br>Glycerol  | LD50 Oral                | Rat        | 12600 mg/kg                | -        |
| Poly(oxy-1,2-ethanediyl), .<br>alpha.-[<br>(1,1,3,3-tetramethylbutyl)<br>phenyl]-.omega.-hydroxy- | LD50 Oral                | Rat        | 2800 mg/kg                 | -        |
| <b>10X SureVector Buffer</b><br>Potassium chloride  | LD50 Oral                | Rat        | 2600 mg/kg                 | -        |
| Ammonium sulphate   | LD50 Oral                | Rat        | 2840 mg/kg                 | -        |
| Polyoxyethylene octyl phenyl<br>ether   | LD50 Oral                | Rat        | 1800 mg/kg                 | -        |
| <b>Dpnl</b><br>Glycerol   | LD50 Oral                | Rat        | 12600 mg/kg                | -        |
| Sodium chloride   | LD50 Oral                | Rat        | 3000 mg/kg                 | -        |

#### Irritation/Corrosion

| Product/ingredient name                      | Result               | Species | Score | Exposure        | Observation |
|--|----------------------|---------|-------|-----------------|-------------|
| <b>5X SureSolution</b><br>Dimethyl sulfoxide | Eyes - Mild irritant | Rabbit  | -     | 24 hours 500 mg | -           |
|  | Eyes - Mild irritant | Rabbit  | -     | 100 mg          | -           |
|  | Skin - Mild irritant | Rabbit  | -     | 24 hours 500 mg | -           |
|  | Skin - Mild irritant | Rabbit  | -     | 100 mg          | -           |
| <b>SureVector Enzyme Mix</b><br>Glycerol     | Eyes - Mild irritant | Rabbit  | -     | 24 hours 500 mg | -           |

## Section 11. Toxicological information

|   |  |                  |        |                             |        |
|---|--|------------------|--------|-----------------------------|--------|
| Poly(oxy-1,2-ethanediyl), .<br>alpha.-[<br>(1,1,3,3-tetramethylbutyl)<br>phenyl]-.omega.-hydroxy- | Skin - Mild irritant                             | Rabbit           | -      | 24 hours 500<br>mg          | -      |
|   | Eyes - Severe irritant                           | Rabbit           | -      | 1 %                         | -      |
| <b>10X SureVector Buffer</b><br>Potassium chloride  | Eyes - Mild irritant                             | Rabbit           | -      | 24 hours 500<br>mg          | -      |
| Polyoxyethylene octyl phenyl<br>ether   | Skin - Mild irritant                             | Rabbit           | -      | 24 hours 500<br>uL          | -      |
| <b>Dpnl</b><br>Glycerol   | Eyes - Mild irritant                             | Rabbit           | -      | 24 hours 500<br>mg          | -      |
|   | Skin - Mild irritant                             | Rabbit           | -      | 24 hours 500<br>mg          | -      |
| Sodium chloride   | Eyes - Moderate irritant                         | Rabbit           | -      | 24 hours 100<br>mg          | -      |
|   | Eyes - Moderate irritant<br>Skin - Mild irritant | Rabbit<br>Rabbit | -<br>- | 10 mg<br>24 hours 500<br>mg | -<br>- |

### Sensitization

Not available.

### Mutagenicity

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Specific target organ toxicity (single exposure)

| Name   | Category   | Route of exposure | Target organs                |
|--|------------|-------------------|------------------------------|
| <b>10X SureVector Buffer</b><br>Polyoxyethylene octyl phenyl ether | Category 3 | -                 | Respiratory tract irritation |

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

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

: 5X SureSolution

SureVector AmpR Selectable  
Marker

SureVector pUC Origin  
SureVector XP1 Linker

SureVector LacI Repressor

SureVector T7 E. coli Promoter

Routes of entry anticipated: Oral, Dermal,  
Inhalation.

Not available.

Not available.

Not available.

Not available.

Not available.

## Section 11. Toxicological information

|  |  |
|--|--|
| SureVector CBP Expression Tag C-Term         | Not available.   |
| SureVector SBP Expression Tag C-Term         | Not available.   |
| SureVector Thioredoxin Expression Tag C-Term | Not available.   |
| SureVector LacZ E. coli Control (C-term)     | Not available.   |
| SureVector Enzyme Mix                        | Routes of entry anticipated: Oral, Dermal, Inhalation. |
| 10X SureVector Buffer                        | Routes of entry anticipated: Oral, Dermal, Inhalation. |
| dNTP Mix                                     | Not available.   |
| DpnI   | Routes of entry anticipated: Oral, Dermal, Inhalation. |

### Potential acute health effects

#### **Eye contact**

|  |   |
|--|---|
| 5X SureSolution                              | Causes eye irritation.                            |
| SureVector AmpR Selectable Marker            | No known significant effects or critical hazards. |
| SureVector pUC Origin                        | No known significant effects or critical hazards. |
| SureVector XP1 Linker                        | No known significant effects or critical hazards. |
| SureVector LacI Repressor                    | No known significant effects or critical hazards. |
| SureVector T7 E. coli Promoter               | No known significant effects or critical hazards. |
| SureVector CBP Expression Tag C-Term         | No known significant effects or critical hazards. |
| SureVector SBP Expression Tag C-Term         | No known significant effects or critical hazards. |
| SureVector Thioredoxin Expression Tag C-Term | No known significant effects or critical hazards. |
| SureVector LacZ E. coli Control (C-term)     | No known significant effects or critical hazards. |
| SureVector Enzyme Mix                        | Causes eye irritation.                            |
| 10X SureVector Buffer                        | Causes serious eye irritation.                    |
| dNTP Mix                                     | No known significant effects or critical hazards. |
| DpnI   | Causes serious eye irritation.                    |

#### **Inhalation**

|  |   |
|--|---|
| 5X SureSolution                              | No known significant effects or critical hazards. |
| SureVector AmpR Selectable Marker            | No known significant effects or critical hazards. |
| SureVector pUC Origin                        | No known significant effects or critical hazards. |
| SureVector XP1 Linker                        | No known significant effects or critical hazards. |
| SureVector LacI Repressor                    | No known significant effects or critical hazards. |
| SureVector T7 E. coli Promoter               | No known significant effects or critical hazards. |
| SureVector CBP Expression Tag C-Term         | No known significant effects or critical hazards. |
| SureVector SBP Expression Tag C-Term         | No known significant effects or critical hazards. |
| SureVector Thioredoxin Expression Tag C-Term | No known significant effects or critical hazards. |
| SureVector LacZ E. coli Control (C-term)     | No known significant effects or critical hazards. |
| SureVector Enzyme Mix                        | No known significant effects or critical hazards. |
| 10X SureVector Buffer                        | No known significant effects or critical hazards. |
| dNTP Mix                                     | No known significant effects or critical hazards. |
| DpnI   | No known significant effects or critical hazards. |

## Section 11. Toxicological information

|                     |  |   |
|---------------------|--|---|
| <b>Skin contact</b> | : 5X SureSolution                            | No known significant effects or critical hazards. |
|                     | SureVector AmpR Selectable Marker            | No known significant effects or critical hazards. |
|                     | SureVector pUC Origin                        | No known significant effects or critical hazards. |
|                     | SureVector XP1 Linker                        | No known significant effects or critical hazards. |
|                     | SureVector LacI Repressor                    | No known significant effects or critical hazards. |
|                     | SureVector T7 E. coli Promoter               | No known significant effects or critical hazards. |
|                     | SureVector CBP Expression Tag C-Term         | No known significant effects or critical hazards. |
|                     | SureVector SBP Expression Tag C-Term         | No known significant effects or critical hazards. |
|                     | SureVector Thioredoxin Expression Tag C-Term | No known significant effects or critical hazards. |
|                     | SureVector LacZ E. coli Control (C-term)     | No known significant effects or critical hazards. |
|                     | SureVector Enzyme Mix                        | No known significant effects or critical hazards. |
|                     | 10X SureVector Buffer                        | No known significant effects or critical hazards. |
|                     | dNTP Mix                                     | No known significant effects or critical hazards. |
|                     | DpnI   | No known significant effects or critical hazards. |
| <b>Ingestion</b>    | : 5X SureSolution                            | No known significant effects or critical hazards. |
|                     | SureVector AmpR Selectable Marker            | No known significant effects or critical hazards. |
|                     | SureVector pUC Origin                        | No known significant effects or critical hazards. |
|                     | SureVector XP1 Linker                        | No known significant effects or critical hazards. |
|                     | SureVector LacI Repressor                    | No known significant effects or critical hazards. |
|                     | SureVector T7 E. coli Promoter               | No known significant effects or critical hazards. |
|                     | SureVector CBP Expression Tag C-Term         | No known significant effects or critical hazards. |
|                     | SureVector SBP Expression Tag C-Term         | No known significant effects or critical hazards. |
|                     | SureVector Thioredoxin Expression Tag C-Term | No known significant effects or critical hazards. |
|                     | SureVector LacZ E. coli Control (C-term)     | No known significant effects or critical hazards. |
|                     | SureVector Enzyme Mix                        | No known significant effects or critical hazards. |
|                     | 10X SureVector Buffer                        | No known significant effects or critical hazards. |
|                     | dNTP Mix                                     | No known significant effects or critical hazards. |
|                     | DpnI   | No known significant effects or critical hazards. |

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

|                    |  |  |
|--------------------|--|--|
| <b>Eye contact</b> | : 5X SureSolution                            | Adverse symptoms may include the following:<br>irritation<br>watering<br>redness |
|                    | SureVector AmpR Selectable Marker            | No specific data.  |
|                    | SureVector pUC Origin                        | No specific data.  |
|                    | SureVector XP1 Linker                        | No specific data.  |
|                    | SureVector LacI Repressor                    | No specific data.  |
|                    | SureVector T7 E. coli Promoter               | No specific data.  |
|                    | SureVector CBP Expression Tag C-Term         | No specific data.  |
|                    | SureVector SBP Expression Tag C-Term         | No specific data.  |
|                    | SureVector Thioredoxin Expression Tag C-Term | No specific data.  |
|                    | SureVector LacZ E. coli Control (C-term)     | No specific data.  |
|                    | SureVector Enzyme Mix                        | Adverse symptoms may include the following:                                      |

## Section 11. Toxicological information

irritation  
 watering  
 redness  
 Adverse symptoms may include the following:  
 pain or irritation  
 watering  
 redness  
 No specific data.  
 Adverse symptoms may include the following:  
 pain or irritation  
 watering  
 redness

10X SureVector Buffer

dNTP Mix  
 DpnI

### Inhalation

: 5X SureSolution No specific data.  
 SureVector AmpR Selectable No specific data.  
 Marker  
 SureVector pUC Origin No specific data.  
 SureVector XP1 Linker No specific data.  
 SureVector LacI Repressor No specific data.  
 SureVector T7 E. coli Promoter No specific data.  
 SureVector CBP Expression Tag No specific data.  
 C-Term  
 SureVector SBP Expression Tag No specific data.  
 C-Term  
 SureVector Thioredoxin No specific data.  
 Expression Tag C-Term  
 SureVector LacZ E. coli Control (C- No specific data.  
 term)  
 SureVector Enzyme Mix No specific data.  
 10X SureVector Buffer No specific data.  
 dNTP Mix No specific data.  
 DpnI No specific data.

### Skin contact

: 5X SureSolution No specific data.  
 SureVector AmpR Selectable No specific data.  
 Marker  
 SureVector pUC Origin No specific data.  
 SureVector XP1 Linker No specific data.  
 SureVector LacI Repressor No specific data.  
 SureVector T7 E. coli Promoter No specific data.  
 SureVector CBP Expression Tag No specific data.  
 C-Term  
 SureVector SBP Expression Tag No specific data.  
 C-Term  
 SureVector Thioredoxin No specific data.  
 Expression Tag C-Term  
 SureVector LacZ E. coli Control (C- No specific data.  
 term)  
 SureVector Enzyme Mix No specific data.  
 10X SureVector Buffer No specific data.  
 dNTP Mix No specific data.  
 DpnI No specific data.

### Ingestion

: 5X SureSolution No specific data.  
 SureVector AmpR Selectable No specific data.  
 Marker  
 SureVector pUC Origin No specific data.  
 SureVector XP1 Linker No specific data.  
 SureVector LacI Repressor No specific data.  
 SureVector T7 E. coli Promoter No specific data.  
 SureVector CBP Expression Tag No specific data.  
 C-Term  
 SureVector SBP Expression Tag No specific data.

## Section 11. Toxicological information

|  |                   |
|--|-------------------|
| C-Term                                   |                   |
| SureVector Thioredoxin                   | No specific data. |
| Expression Tag C-Term                    |                   |
| SureVector LacZ E. coli Control (C-term) | No specific data. |
| SureVector Enzyme Mix                    | No specific data. |
| 10X SureVector Buffer                    | No specific data. |
| dNTP Mix                                 | No specific data. |
| DpnI                                     | No specific data. |

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Potential chronic health effects

|  |  |   |   |
|--|--|---|---|
| <b>General</b>                           | 5X SureSolution                          | No known significant effects or critical hazards. |   |
|  | SureVector AmpR Selectable Marker        | No known significant effects or critical hazards. |   |
|  | SureVector pUC Origin                    | No known significant effects or critical hazards. |   |
|  | SureVector XP1 Linker                    | No known significant effects or critical hazards. |   |
|  | SureVector LacI Repressor                | No known significant effects or critical hazards. |   |
|  | SureVector T7 E. coli Promoter           | No known significant effects or critical hazards. |   |
|  | SureVector CBP Expression Tag C-Term     | No known significant effects or critical hazards. |   |
|  | SureVector SBP Expression Tag C-Term     | No known significant effects or critical hazards. |   |
|  | SureVector Thioredoxin                   | No known significant effects or critical hazards. |   |
|  | Expression Tag C-Term                    |   |   |
|  | SureVector LacZ E. coli Control (C-term) | No known significant effects or critical hazards. |   |
|  | SureVector Enzyme Mix                    | No known significant effects or critical hazards. |   |
|  | 10X SureVector Buffer                    | No known significant effects or critical hazards. |   |
|  | dNTP Mix                                 | No known significant effects or critical hazards. |   |
|  | DpnI                                     | No known significant effects or critical hazards. |   |
|  | <b>Carcinogenicity</b>                   | 5X SureSolution                                   | No known significant effects or critical hazards. |
|  |  | SureVector AmpR Selectable Marker                 | No known significant effects or critical hazards. |
| SureVector pUC Origin                    |  | No known significant effects or critical hazards. |   |
| SureVector XP1 Linker                    |  | No known significant effects or critical hazards. |   |
| SureVector LacI Repressor                |  | No known significant effects or critical hazards. |   |
| SureVector T7 E. coli Promoter           |  | No known significant effects or critical hazards. |   |
| SureVector CBP Expression Tag C-Term     |  | No known significant effects or critical hazards. |   |
| SureVector SBP Expression Tag C-Term     |  | No known significant effects or critical hazards. |   |
| SureVector Thioredoxin                   |  | No known significant effects or critical hazards. |   |
| Expression Tag C-Term                    |  |   |   |
| SureVector LacZ E. coli Control (C-term) |  | No known significant effects or critical hazards. |   |
| SureVector Enzyme Mix                    |  | No known significant effects or critical hazards. |   |
| 10X SureVector Buffer                    |  | No known significant effects or critical hazards. |   |
| dNTP Mix                                 |  | No known significant effects or critical hazards. |   |

## Section 11. Toxicological information

|                              |   |   |
|------------------------------|---|---|
| <b>Mutagenicity</b>          | DpnI  | No known significant effects or critical hazards. |
|                              | 5X SureSolution                                   | No known significant effects or critical hazards. |
|                              | SureVector AmpR Selectable Marker                 | No known significant effects or critical hazards. |
|                              | SureVector pUC Origin                             | No known significant effects or critical hazards. |
|                              | SureVector XP1 Linker                             | No known significant effects or critical hazards. |
|                              | SureVector LacI Repressor                         | No known significant effects or critical hazards. |
|                              | SureVector T7 E. coli Promoter                    | No known significant effects or critical hazards. |
|                              | SureVector CBP Expression Tag C-Term              | No known significant effects or critical hazards. |
|                              | SureVector SBP Expression Tag C-Term              | No known significant effects or critical hazards. |
|                              | SureVector Thioredoxin Expression Tag C-Term      | No known significant effects or critical hazards. |
|                              | SureVector LacZ E. coli Control (C-term)          | No known significant effects or critical hazards. |
|                              | SureVector Enzyme Mix                             | No known significant effects or critical hazards. |
|                              | 10X SureVector Buffer                             | No known significant effects or critical hazards. |
| dNTP Mix                     | No known significant effects or critical hazards. |   |
| DpnI                         | No known significant effects or critical hazards. |   |
| <b>Reproductive toxicity</b> | 5X SureSolution                                   | No known significant effects or critical hazards. |
|                              | SureVector AmpR Selectable Marker                 | No known significant effects or critical hazards. |
|                              | SureVector pUC Origin                             | No known significant effects or critical hazards. |
|                              | SureVector XP1 Linker                             | No known significant effects or critical hazards. |
|                              | SureVector LacI Repressor                         | No known significant effects or critical hazards. |
|                              | SureVector T7 E. coli Promoter                    | No known significant effects or critical hazards. |
|                              | SureVector CBP Expression Tag C-Term              | No known significant effects or critical hazards. |
|                              | SureVector SBP Expression Tag C-Term              | No known significant effects or critical hazards. |
|                              | SureVector Thioredoxin Expression Tag C-Term      | No known significant effects or critical hazards. |
|                              | SureVector LacZ E. coli Control (C-term)          | No known significant effects or critical hazards. |
|                              | SureVector Enzyme Mix                             | No known significant effects or critical hazards. |
|                              | 10X SureVector Buffer                             | No known significant effects or critical hazards. |
|                              | dNTP Mix  | No known significant effects or critical hazards. |
| DpnI                         | No known significant effects or critical hazards. |   |

### Numerical measures of toxicity

#### Acute toxicity estimates

| Product/ingredient name   | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
| <b>5X SureSolution</b><br>Dimethyl sulfoxide  | 14500        | 40000          | N/A                      | N/A                        | N/A                                 |
| <b>SureVector Enzyme Mix</b><br>Glycerol  | 12600        | N/A            | N/A                      | N/A                        | N/A                                 |
| Poly(oxy-1,2-ethanediyl), .alpha.-[<br>(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy- | 2800         | N/A            | N/A                      | N/A                        | N/A                                 |
| <b>10X SureVector Buffer</b><br>10X SureVector Buffer                                     | 41044.5      | N/A            | N/A                      | N/A                        | N/A                                 |
| Potassium chloride  | 2600         | N/A            | N/A                      | N/A                        | N/A                                 |
| Ammonium sulphate   | 2840         | N/A            | N/A                      | N/A                        | N/A                                 |

## Section 11. Toxicological information

|                                    |          |     |     |     |     |
|------------------------------------|----------|-----|-----|-----|-----|
| Polyoxyethylene octyl phenyl ether | 1800     | N/A | N/A | N/A | N/A |
| <b>Dpnl</b>                        |          |     |     |     |     |
| Dpnl                               | 128314.8 | N/A | N/A | N/A | N/A |
| Glycerol                           | 12600    | N/A | N/A | N/A | N/A |
| Sodium chloride                    | 3000     | N/A | N/A | N/A | N/A |

## Section 12. Ecological information

### 12.1 Toxicity

| Product/ingredient name  | Result   | Species  | Exposure   |
|--|--|--|--|
| <b>5X SureSolution</b><br>Dimethyl sulfoxide   | Acute LC50 25000 ppm Fresh water<br>Acute LC50 34000000 µg/l Fresh water<br>Chronic NOEC 100 ul/L Marine water<br>Chronic NOEC 100 ul/L Fresh water  | Daphnia - Daphnia magna - Neonate<br>Fish - Pimephales promelas<br>Algae - Ulva lactuca<br>Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)   | 48 hours<br>96 hours<br>72 hours<br>21 days  |
| <b>SureVector Enzyme Mix</b><br>Glycerol<br>Poly(oxy-1,2-ethanediyl), . alpha.-[ (1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy- | Acute LC50 54000 mg/l Fresh water<br>Acute EC50 210 µg/l Fresh water<br>Acute LC50 10800 µg/l Marine water<br>Acute LC50 8600 µg/l Fresh water<br>Acute LC50 7200 µg/l Fresh water   | Fish - Oncorhynchus mykiss<br>Algae - Selenastrum sp.<br>Crustaceans - Pandalus montagui - Adult<br>Daphnia - Daphnia magna - Neonate<br>Fish - Oncorhynchus mykiss  | 96 hours<br>96 hours<br>48 hours<br>48 hours<br>96 hours   |
| <b>10X SureVector Buffer</b><br>Potassium chloride   | Acute EC50 1337000 µg/l Fresh water<br>Acute EC50 9.24 g/L Fresh water<br>Acute EC50 83000 µg/l Fresh water<br>Acute LC50 9.68 mg/l Fresh water<br>Acute LC50 509.65 mg/l Fresh water<br>Chronic NOEC 7.5 mg/l Marine water  | Algae - Navicula seminulum<br>Algae - Desmodesmus subspicatus<br>Daphnia - Daphnia magna<br>Crustaceans - Pseudosida ramosa - Neonate<br>Fish - Danio rerio<br>Algae - Phaeodactylum tricornutum - Exponential growth phase<br>Crustaceans - Ceriodaphnia rigaudi - Neonate<br>Daphnia - Daphnia magna - Neonate<br>Fish - Pimephales promelas | 96 hours<br>72 hours<br>48 hours<br>48 hours<br>96 hours<br>96 hours<br>48 hours<br>48 hours<br>96 hours |
| Polyoxyethylene octyl phenyl ether   | Acute LC50 5.85 mg/l Fresh water<br>Acute LC50 11.2 mg/l Fresh water<br>Acute LC50 4500 µg/l Fresh water   | Crustaceans - Ceriodaphnia rigaudi - Neonate<br>Daphnia - Daphnia magna - Neonate<br>Fish - Pimephales promelas  | 48 hours<br>48 hours<br>96 hours   |
| <b>Dpnl</b><br>Glycerol<br>Sodium chloride   | Acute LC50 54000 mg/l Fresh water<br>Acute EC50 2430000 µg/l Fresh water<br>Acute EC50 519.6 mg/l Fresh water<br>Acute EC50 402.6 mg/l Fresh water<br>Acute IC50 6.87 g/L Fresh water<br>Acute LC50 1000000 µg/l Fresh water | Fish - Oncorhynchus mykiss<br>Algae - Navicula seminulum<br>Crustaceans - Cypris subglobosa<br>Daphnia - Daphnia magna<br>Aquatic plants - Lemna minor<br>Fish - Morone saxatilis - Larvae   | 96 hours<br>96 hours<br>48 hours<br>48 hours<br>96 hours<br>96 hours                                     |

## Section 12. Ecological information

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

| Product/ingredient name                      | Test  | Result                       | Dose | Inoculum |
|--|---|------------------------------|------|----------|
| <b>5X SureSolution</b><br>Dimethyl sulfoxide | OECD 301D Ready Biodegradability - Closed Bottle Test | 31 % - Not readily - 28 days | -    | -        |
| <b>SureVector Enzyme Mix</b><br>Glycerol     | 301D Ready Biodegradability - Closed Bottle Test      | 93 % - 30 days               | -    | -        |
| <b>Dpnl</b><br>Glycerol                      | 301D Ready Biodegradability - Closed Bottle Test      | 93 % - 30 days               | -    | -        |

| Product/ingredient name                            | Aquatic half-life | Photolysis | Biodegradability |
|--|-------------------|------------|------------------|
| <b>5X SureSolution</b><br>Dimethyl sulfoxide       | -                 | -          | Not readily      |
| <b>10X SureVector Buffer</b><br>Potassium chloride | -                 | -          | Readily          |
| Ammonium sulphate                                  | -                 | -          | Readily          |
| Polyoxyethylene octyl phenyl ether                 | -                 | -          | Readily          |

### 12.3 Bioaccumulative potential

| Product/ingredient name  | LogP <sub>ow</sub> | BCF   | Potential |
|--|--------------------|-------|-----------|
| <b>5X SureSolution</b><br>Dimethyl sulfoxide   | -1.35              | 3.16  | low       |
| <b>SureVector Enzyme Mix</b><br>Glycerol   | -1.76              | -     | low       |
| Poly(oxy-1,2-ethanediyl), . alpha.-[ (1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy- | 3.77               | 78.67 | low       |
| <b>10X SureVector Buffer</b><br>Potassium chloride                                       | -0.46              | -     | low       |
| Ammonium sulphate  | -5.1               | -     | low       |
| Polyoxyethylene octyl phenyl ether   | 4.86               | -     | high      |

## Section 12. Ecological information

|                  |       |   |     |
|------------------|-------|---|-----|
| Dpnl<br>Glycerol | -1.76 | - | low |
|------------------|-------|---|-----|

### 12.4 Mobility in soil

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

## Section 15. Regulatory information

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

**U.S. Federal regulations** : **TSCA 8(a) PAIR:** Polyoxyethylene octyl phenyl ether; Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-  
**TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**Clean Water Act (CWA) 311:** Edetic acid

## Section 15. Regulatory information

**Clean Air Act Section 112** : Not listed

**(b) Hazardous Air Pollutants (HAPs)**

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

**SARA 302/304**

**Composition/information on ingredients**

No products were found.

**SARA 304 RQ** : Not applicable.

**SARA 311/312**

**Classification**

|  |  |
|--|--|
| 5X SureSolution                              | FLAMMABLE LIQUIDS - Category 4<br>EYE IRRITATION - Category 2B |
| SureVector AmpR Selectable Marker            | Not applicable.  |
| SureVector pUC Origin                        | Not applicable.  |
| SureVector XP1 Linker                        | Not applicable.  |
| SureVector LacI Repressor                    | Not applicable.  |
| SureVector T7 E. coli Promoter               | Not applicable.  |
| SureVector CBP Expression Tag C-Term         | Not applicable.  |
| SureVector SBP Expression Tag C-Term         | Not applicable.  |
| SureVector Thioredoxin Expression Tag C-Term | Not applicable.  |
| SureVector LacZ E. coli Control (C-term)     | Not applicable.  |
| SureVector Enzyme Mix                        | EYE IRRITATION - Category 2B                                   |
| 10X SureVector Buffer                        | EYE IRRITATION - Category 2A                                   |
| dNTP Mix                                     | Not applicable.  |
| DpnI   | EYE IRRITATION - Category 2A                                   |

**Composition/information on ingredients**

| Name   | %         | Classification  |
|--|-----------|---|
| <b>5X SureSolution</b><br>Dimethyl sulfoxide       | 100       | FLAMMABLE LIQUIDS - Category 4<br>EYE IRRITATION - Category 2B  |
| <b>SureVector Enzyme Mix</b><br>Glycerol           | ≥50 - ≤75 | EYE IRRITATION - Category 2B  |
| <b>10X SureVector Buffer</b><br>Potassium chloride | ≤5        | EYE IRRITATION - Category 2B  |
| Ammonium sulphate                                  | ≤3        | EYE IRRITATION - Category 2A  |
| Polyoxyethylene octyl phenyl ether                 | <2.5      | ACUTE TOXICITY (oral) - Category 4<br>SKIN IRRITATION - Category 2<br>SERIOUS EYE DAMAGE - Category 1<br>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 |
| <b>DpnI</b><br>Glycerol                            | ≥50 - ≤75 | EYE IRRITATION - Category 2B  |
| Sodium chloride                                    | ≤3        | EYE IRRITATION - Category 2A  |

**SARA 313**

## Section 15. Regulatory information

|  | Product name                                      | CAS number | %  |
|--|---|------------|----|
| <b>Form R - Reporting requirements</b> | <b>10X SureVector Buffer</b><br>Ammonium sulphate | 7783-20-2  | ≤3 |
| <b>Supplier notification</b>           | <b>10X SureVector Buffer</b><br>Ammonium sulphate | 7783-20-2  | ≤3 |

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

### State regulations

- Massachusetts** : The following components are listed: GLYCERINE MIST
- New York** : None of the components are listed.
- New Jersey** : The following components are listed: DIMETHYL SULFOXIDE; METHANE, SULFINYLBI-; GLYCERIN; 1,2,3-PROPANETRIOL
- Pennsylvania** : The following components are listed: 1,2,3-PROPANETRIOL
- California Prop. 65**

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

### International regulations

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

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

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

Not listed.

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

Not listed.

### Inventory list

- Australia** : Not determined.
- Canada** : Not determined.
- China** : All components are listed or exempted.
- Europe** : All components are listed or exempted.
- Japan** : **Japan inventory (CSCL)**: Not determined.  
**Japan inventory (ISHL)**: Not determined.
- New Zealand** : Not determined.
- Philippines** : Not determined.
- Republic of Korea** : Not determined.
- Taiwan** : All components are listed or exempted.
- Thailand** : Not determined.
- Turkey** : Not determined.
- United States** :  All components are active or exempted.
- Viet Nam** : Not determined.

## Section 16. Other information

### [Procedure used to derive the classification](#)

| Classification   | Justification                                  |
|--|--|
| <b>5X SureSolution</b><br>FLAMMABLE LIQUIDS - Category 4<br>EYE IRRITATION - Category 2B | On basis of test data<br>On basis of test data |
| <b>SureVector Enzyme Mix</b><br>EYE IRRITATION - Category 2B                             | Calculation method                             |
| <b>10X SureVector Buffer</b><br>EYE IRRITATION - Category 2A                             | Calculation method                             |
| <b>Dpnl</b><br>EYE IRRITATION - Category 2A  | Calculation method                             |

### [History](#)

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**Version** : 4

**Key to abbreviations** :

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

📌 Indicates information that has changed from previously issued version.

### [Notice to reader](#)

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