

# SAFETY DATA SHEET

Thermo Sequenase™ Cycle Sequencing Kit

## Section 1. Identification

|                                      |   |
|--------------------------------------|---|
| <b>GHS product identifier</b>        | : Thermo Sequenase™ Cycle Sequencing Kit  |
| <b>Code</b>                          | : 78500   |
| <b>Other means of identification</b> | : Not available.  |
| <b>Trade name</b>                    | : Thermo Sequenase™ Cycle Sequencing Kit  |
| <b>Supplier/Manufacturer</b>         | : 3420 Central Expressway, Santa Clara CA 95051                                       |
| <b>In case of emergency</b>          | : <b>Chemtrec: 1 800 424 9300</b><br><b>Outside USA &amp; Canada: +1 703 527 3887</b> |

## Section 2. Hazards identification

|                        |   |  |
|------------------------|---|--|
| <b>OSHA/HCS status</b> | : Thermo Sequenase™ / TAP Dilution<br>Thermo Sequenase™ Reaction Buffer | 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 MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product. |
|                        | pUC18 Control DNA   | While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.   |
|                        | Primer (-40) Forward 23 mer   | While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.   |
|                        | dATP Cycle Mix  | While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.   |
|                        | dTTP Cycle Mix  | While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.   |
|                        | dCTP Cycle Mix  | While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.   |
|                        | 7-Deaza-dGTP Cycle Mix  | While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees  |

## Section 2. Hazards identification

|   |   |
|---|---|
| ddGTP Term Mix  | and other users of this product.<br>While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.  |
| ddATP Term Mix  | While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.  |
| ddTTP Term Mix  | While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.  |
| ddCTP Term Mix  | While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.  |
| Stop Solution   | This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).   |
| <b>Classification of the substance or mixture</b><br>: Thermo Sequenase™ / TAP Dilution<br>Thermo Sequenase™ Reaction Buffer<br>pUC18 Control DNA<br>Primer (-40) Forward 23 mer<br>dATP Cycle Mix<br>dTTP Cycle Mix<br>dCTP Cycle Mix<br>7-Deaza-dGTP Cycle Mix<br>ddGTP Term Mix<br>ddATP Term Mix<br>ddTTP Term Mix<br>ddCTP Term Mix<br>Stop Solution | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B<br>Not classified.<br>Not classified.<br>Not classified.<br>Not classified.<br>Not classified.<br>Not classified.<br>Not classified.<br>Not classified.<br>Not classified.<br>Not classified.<br>Not classified.<br>Not classified.<br>Not classified.<br>Not classified.<br>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A<br>TOXIC TO REPRODUCTION (Fertility) - Category 1B<br>TOXIC TO REPRODUCTION (Unborn child) - Category 1B |

**GHS label elements**  
**Hazard pictograms**



## Section 2. Hazards identification

|                                 |                                    |   |                 |
|---------------------------------|------------------------------------|---|-----------------|
| <b>Signal word</b>              | : Thermo Sequenase™ / TAP Dilution | Warning   |                 |
|                                 | Thermo Sequenase™ Reaction Buffer  | No signal word.   |                 |
|                                 | pUC18 Control DNA                  | No signal word.   |                 |
|                                 | Primer (-40) Forward 23 mer        | No signal word.   |                 |
|                                 | dATP Cycle Mix                     | No signal word.   |                 |
|                                 | dTTP Cycle Mix                     | No signal word.   |                 |
|                                 | dCTP Cycle Mix                     | No signal word.   |                 |
|                                 | 7-Deaza-dGTP Cycle Mix             | No signal word.   |                 |
|                                 | ddGTP Term Mix                     | No signal word.   |                 |
|                                 | ddATP Term Mix                     | No signal word.   |                 |
|                                 | ddTTP Term Mix                     | No signal word.   |                 |
|                                 | ddCTP Term Mix                     | No signal word.   |                 |
|                                 | Stop Solution                      | Danger  |                 |
| <b>Hazard statements</b>        | : Thermo Sequenase™ / TAP Dilution | Causes eye irritation.  |                 |
|                                 | Thermo Sequenase™ Reaction Buffer  | No known significant effects or critical hazards.                           |                 |
|                                 | pUC18 Control DNA                  | No known significant effects or critical hazards.                           |                 |
|                                 | Primer (-40) Forward 23 mer        | No known significant effects or critical hazards.                           |                 |
|                                 | dATP Cycle Mix                     | No known significant effects or critical hazards.                           |                 |
|                                 | dTTP Cycle Mix                     | No known significant effects or critical hazards.                           |                 |
|                                 | dCTP Cycle Mix                     | No known significant effects or critical hazards.                           |                 |
|                                 | 7-Deaza-dGTP Cycle Mix             | No known significant effects or critical hazards.                           |                 |
|                                 | ddGTP Term Mix                     | No known significant effects or critical hazards.                           |                 |
|                                 | ddATP Term Mix                     | No known significant effects or critical hazards.                           |                 |
|                                 | ddTTP Term Mix                     | No known significant effects or critical hazards.                           |                 |
|                                 | ddCTP Term Mix                     | No known significant effects or critical hazards.                           |                 |
|                                 | Stop Solution                      | Causes serious eye irritation.<br>May damage fertility or the unborn child. |                 |
| <b>Precautionary statements</b> | <b>General</b>                     | : Thermo Sequenase™ / TAP Dilution  | Not applicable. |
|                                 |                                    | Thermo Sequenase™ Reaction Buffer   | Not applicable. |
|                                 |                                    | pUC18 Control DNA   | Not applicable. |
|                                 |                                    | Primer (-40) Forward 23 mer   | Not applicable. |
|                                 |                                    | dATP Cycle Mix  | Not applicable. |
|                                 |                                    | dTTP Cycle Mix  | Not applicable. |
|                                 |                                    | dCTP Cycle Mix  | Not applicable. |
|                                 |                                    | 7-Deaza-dGTP Cycle Mix  | Not applicable. |
|                                 |                                    | ddGTP Term Mix  | Not applicable. |
|                                 |                                    | ddATP Term Mix  | Not applicable. |
|                                 |                                    | ddTTP Term Mix  | Not applicable. |
|                                 |                                    | ddCTP Term Mix  | Not applicable. |
|                                 |                                    | Stop Solution   | Not applicable. |
| <b>Prevention</b>               | : Thermo Sequenase™ / TAP Dilution | Wear eye or face protection. Wash hands thoroughly after handling.          |                 |
|                                 | Thermo Sequenase™ Reaction Buffer  | Not applicable.   |                 |
|                                 | pUC18 Control DNA                  | Not applicable.   |                 |
|                                 | Primer (-40) Forward 23 mer        | Not applicable.   |                 |
|                                 | dATP Cycle Mix                     | Not applicable.   |                 |
|                                 | dTTP Cycle Mix                     | Not applicable.   |                 |
|                                 | dCTP Cycle Mix                     | Not applicable.   |                 |
|                                 | 7-Deaza-dGTP Cycle Mix             | Not applicable.   |                 |
|                                 | ddGTP Term Mix                     | Not applicable.   |                 |

## Section 2. Hazards identification

|                 |                                    |   |
|-----------------|------------------------------------|---|
|                 | ddATP Term Mix                     | Not applicable.   |
|                 | ddTTP Term Mix                     | Not applicable.   |
|                 | ddCTP Term Mix                     | Not applicable.   |
|                 | Stop Solution                      | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear eye or face protection. Wash hands thoroughly after handling. |
| <b>Response</b> | : Thermo Sequenase™ / TAP Dilution | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.   |
|                 | Thermo Sequenase™ Reaction Buffer  | Not applicable.   |
|                 | pUC18 Control DNA                  | Not applicable.   |
|                 | Primer (-40) Forward 23 mer        | Not applicable.   |
|                 | dATP Cycle Mix                     | Not applicable.   |
|                 | dTTP Cycle Mix                     | Not applicable.   |
|                 | dCTP Cycle Mix                     | Not applicable.   |
|                 | 7-Deaza-dGTP Cycle Mix             | Not applicable.   |
|                 | ddGTP Term Mix                     | Not applicable.   |
|                 | ddATP Term Mix                     | Not applicable.   |
|                 | ddTTP Term Mix                     | Not applicable.   |
|                 | ddCTP Term Mix                     | Not applicable.   |
|                 | Stop Solution                      | IF exposed or concerned: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. |
| <b>Storage</b>  | : Thermo Sequenase™ / TAP Dilution | Not applicable.   |
|                 | Thermo Sequenase™ Reaction Buffer  | Not applicable.   |
|                 | pUC18 Control DNA                  | Not applicable.   |
|                 | Primer (-40) Forward 23 mer        | Not applicable.   |
|                 | dATP Cycle Mix                     | Not applicable.   |
|                 | dTTP Cycle Mix                     | Not applicable.   |
|                 | dCTP Cycle Mix                     | Not applicable.   |
|                 | 7-Deaza-dGTP Cycle Mix             | Not applicable.   |
|                 | ddGTP Term Mix                     | Not applicable.   |
|                 | ddATP Term Mix                     | Not applicable.   |
|                 | ddTTP Term Mix                     | Not applicable.   |
|                 | ddCTP Term Mix                     | Not applicable.   |
|                 | Stop Solution                      | Store locked up.  |
| <b>Disposal</b> | : Thermo Sequenase™ / TAP Dilution | Not applicable.   |
|                 | Thermo Sequenase™ Reaction Buffer  | Not applicable.   |
|                 | pUC18 Control DNA                  | Not applicable.   |
|                 | Primer (-40) Forward 23 mer        | Not applicable.   |
|                 | dATP Cycle Mix                     | Not applicable.   |
|                 | dTTP Cycle Mix                     | Not applicable.   |
|                 | dCTP Cycle Mix                     | Not applicable.   |
|                 | 7-Deaza-dGTP Cycle Mix             | Not applicable.   |
|                 | ddGTP Term Mix                     | Not applicable.   |
|                 | ddATP Term Mix                     | Not applicable.   |
|                 | ddTTP Term Mix                     | Not applicable.   |
|                 | ddCTP Term Mix                     | Not applicable.   |

## Section 2. Hazards identification

|   |                                    |   |
|---|------------------------------------|---|
|   | Stop Solution                      | Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| <b>Supplemental label elements</b>      | : Thermo Sequenase™ / TAP Dilution | None known.   |
|   | Thermo Sequenase™ Reaction Buffer  | None known.   |
|   | pUC18 Control DNA                  | None known.   |
|   | Primer (-40) Forward 23 mer        | None known.   |
|   | dATP Cycle Mix                     | None known.   |
|   | dTTP Cycle Mix                     | None known.   |
|   | dCTP Cycle Mix                     | None known.   |
|   | 7-Deaza-dGTP Cycle Mix             | None known.   |
|   | ddGTP Term Mix                     | None known.   |
|   | ddATP Term Mix                     | None known.   |
|   | ddTTP Term Mix                     | None known.   |
|   | ddCTP Term Mix                     | None known.   |
|   | Stop Solution                      | None known.   |
| <b>Hazards not otherwise classified</b> | : Thermo Sequenase™ / TAP Dilution | None known.   |
|   | Thermo Sequenase™ Reaction Buffer  | None known.   |
|   | pUC18 Control DNA                  | None known.   |
|   | Primer (-40) Forward 23 mer        | None known.   |
|   | dATP Cycle Mix                     | None known.   |
|   | dTTP Cycle Mix                     | None known.   |
|   | dCTP Cycle Mix                     | None known.   |
|   | 7-Deaza-dGTP Cycle Mix             | None known.   |
|   | ddGTP Term Mix                     | None known.   |
|   | ddATP Term Mix                     | None known.   |
|   | ddTTP Term Mix                     | None known.   |
|   | ddCTP Term Mix                     | None known.   |
|   | Stop Solution                      | None known.   |

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

| Ingredient name   | %       | CAS number |
|---|---------|------------|
| <b>Thermo Sequenase™ / TAP Dilution</b><br>glycerol                                 | 25 - 50 | 56-81-5    |
| <b>Thermo Sequenase™ Reaction Buffer</b><br>trometamol                              | 1 - 10  | 77-86-1    |
| <b>pUC18 Control DNA</b><br>2-amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride | 1 - 10  | 1185-53-1  |
| Glycine, N,N'-1,2-ethanediybis[N-(carboxymethyl)-, sodium salt, hydrate (1:2:2)     | 1 - 10  | 6381-92-6  |
| trometamol  | 1 - 10  | 77-86-1    |
| <b>Stop Solution</b><br>formamide   | 50 - 95 | 75-12-7    |

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

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

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

## Section 3. Composition/information on ingredients

## Section 4. First aid measures

### Description of necessary first aid measures

#### Eye contact

|                                   |   |
|-----------------------------------|---|
| Thermo Sequenase™ / TAP Dilution  | 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. |
| Thermo Sequenase™ Reaction Buffer | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.   |
| pUC18 Control DNA                 | 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.   |
| Primer (-40) Forward 23 mer       | 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.   |
| dATP Cycle 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.   |
| dTTP Cycle 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.   |
| dCTP Cycle 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.   |
| 7-Deaza-dGTP Cycle 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.   |
| ddGTP Term 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.   |
| ddATP Term 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.   |
| ddTTP Term 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.   |
| ddCTP Term 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.   |
| Stop Solution                     | 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.                         |

## Section 4. First aid measures

### Inhalation

|                                    |  |
|------------------------------------|--|
| : Thermo Sequenase™ / TAP Dilution | 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. |
| Thermo Sequenase™ Reaction Buffer  | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. 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.  |
| pUC18 Control DNA                  | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. 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.  |
| Primer (-40) Forward 23 mer        | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.  |
| dATP Cycle Mix                     | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.  |
| dTTP Cycle Mix                     | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.  |
| dCTP Cycle Mix                     | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.  |
| 7-Deaza-dGTP Cycle Mix             | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.  |
| ddGTP Term Mix                     | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.  |
| ddATP Term Mix                     | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.  |
| ddTTP Term Mix                     | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.  |
| ddCTP Term Mix                     | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.  |
| Stop Solution                      | 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 unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or  |



## Section 4. First aid measures

### Skin contact

|                                    |   |
|------------------------------------|---|
| : Thermo Sequenase™ / TAP Dilution | 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.   |
| Thermo Sequenase™ Reaction Buffer  | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
| pUC18 Control DNA                  | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
| Primer (-40) Forward 23 mer        | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
| dATP Cycle Mix                     | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
| dTTP Cycle Mix                     | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
| dCTP Cycle Mix                     | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
| 7-Deaza-dGTP Cycle Mix             | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
| ddGTP Term Mix                     | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
| ddATP Term Mix                     | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
| ddTTP Term Mix                     | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
| ddCTP Term Mix                     | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
| Stop Solution                      | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse. |

### Ingestion

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



## Section 4. First aid measures

|                                      |   |
|--------------------------------------|---|
|                                      | medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.   |
| Thermo Sequenase™<br>Reaction Buffer | Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| pUC18 Control DNA                    | Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| Primer (-40) Forward 23 mer          | Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| dATP Cycle Mix                       | Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| dTTP Cycle Mix                       | Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| dCTP Cycle Mix                       | Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| 7-Deaza-dGTP Cycle Mix               | Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| ddGTP Term Mix                       | Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| ddATP Term Mix                       | Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| ddTTP Term Mix                       | Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing.   |

## Section 4. First aid measures

ddCTP Term Mix

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.

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

Stop Solution

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

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

#### Potential acute health effects

##### Eye contact

: Thermo Sequenase™ / TAP Dilution

Causes eye irritation.

Thermo Sequenase™ Reaction Buffer

No known significant effects or critical hazards.

pUC18 Control DNA

No known significant effects or critical hazards.

Primer (-40) Forward 23 mer

No known significant effects or critical hazards.

dATP Cycle Mix

No known significant effects or critical hazards.

dTTP Cycle Mix

No known significant effects or critical hazards.

dCTP Cycle Mix

No known significant effects or critical hazards.

7-Deaza-dGTP Cycle Mix

No known significant effects or critical hazards.

ddGTP Term Mix

No known significant effects or critical hazards.

ddATP Term Mix

No known significant effects or critical hazards.

ddTTP Term Mix

No known significant effects or critical hazards.

ddCTP Term Mix

No known significant effects or critical hazards.

Stop Solution

Causes serious eye irritation.

##### Inhalation

: Thermo Sequenase™ / TAP Dilution

No known significant effects or critical hazards.

Thermo Sequenase™ Reaction Buffer

Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

pUC18 Control DNA

Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Primer (-40) Forward 23 mer

No known significant effects or critical hazards.

dATP Cycle Mix

No known significant effects or critical hazards.

dTTP Cycle Mix

No known significant effects or critical hazards.

dCTP Cycle Mix

No known significant effects or critical hazards.

7-Deaza-dGTP Cycle Mix

No known significant effects or critical hazards.

ddGTP Term Mix

No known significant effects or critical hazards.

ddATP Term Mix

No known significant effects or critical hazards.

ddTTP Term Mix

No known significant effects or critical hazards.

## Section 4. First aid measures

|                                     |                                    |   |
|-------------------------------------|------------------------------------|---|
|                                     | ddCTP Term Mix<br>Stop Solution    | No known significant effects or critical hazards.<br>Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. |
| <b>Skin contact</b>                 | : Thermo Sequenase™ / TAP Dilution | No known significant effects or critical hazards.   |
|                                     | Thermo Sequenase™ Reaction Buffer  | No known significant effects or critical hazards.   |
|                                     | pUC18 Control DNA                  | No known significant effects or critical hazards.   |
|                                     | Primer (-40) Forward 23 mer        | No known significant effects or critical hazards.   |
|                                     | dATP Cycle Mix                     | No known significant effects or critical hazards.   |
|                                     | dTTP Cycle Mix                     | No known significant effects or critical hazards.   |
|                                     | dCTP Cycle Mix                     | No known significant effects or critical hazards.   |
|                                     | 7-Deaza-dGTP Cycle Mix             | No known significant effects or critical hazards.   |
|                                     | ddGTP Term Mix                     | No known significant effects or critical hazards.   |
|                                     | ddATP Term Mix                     | No known significant effects or critical hazards.   |
|                                     | ddTTP Term Mix                     | No known significant effects or critical hazards.   |
|                                     | ddCTP Term Mix                     | No known significant effects or critical hazards.   |
|                                     | Stop Solution                      | No known significant effects or critical hazards.   |
| <b>Ingestion</b>                    | : Thermo Sequenase™ / TAP Dilution | May be irritating to mouth, throat and stomach.   |
|                                     | Thermo Sequenase™ Reaction Buffer  | No known significant effects or critical hazards.   |
|                                     | pUC18 Control DNA                  | No known significant effects or critical hazards.   |
|                                     | Primer (-40) Forward 23 mer        | No known significant effects or critical hazards.   |
|                                     | dATP Cycle Mix                     | No known significant effects or critical hazards.   |
|                                     | dTTP Cycle Mix                     | No known significant effects or critical hazards.   |
|                                     | dCTP Cycle Mix                     | No known significant effects or critical hazards.   |
|                                     | 7-Deaza-dGTP Cycle Mix             | No known significant effects or critical hazards.   |
|                                     | ddGTP Term Mix                     | No known significant effects or critical hazards.   |
|                                     | ddATP Term Mix                     | No known significant effects or critical hazards.   |
|                                     | ddTTP Term Mix                     | No known significant effects or critical hazards.   |
|                                     | ddCTP Term Mix                     | No known significant effects or critical hazards.   |
|                                     | Stop Solution                      | Irritating to mouth, throat and stomach.  |
| <b>Over-exposure signs/symptoms</b> |                                    |   |
| <b>Eye contact</b>                  | : Thermo Sequenase™ / TAP Dilution | Adverse symptoms may include the following:<br>irritation<br>watering<br>redness  |
|                                     | Thermo Sequenase™ Reaction Buffer  | No specific data.   |
|                                     | pUC18 Control DNA                  | No specific data.   |
|                                     | Primer (-40) Forward 23 mer        | No specific data.   |
|                                     | dATP Cycle Mix                     | No specific data.   |
|                                     | dTTP Cycle Mix                     | No specific data.   |
|                                     | dCTP Cycle Mix                     | No specific data.   |
|                                     | 7-Deaza-dGTP Cycle Mix             | No specific data.   |
|                                     | ddGTP Term Mix                     | No specific data.   |
|                                     | ddATP Term Mix                     | No specific data.   |
|                                     | ddTTP Term Mix                     | No specific data.   |
|                                     | ddCTP Term Mix                     | No specific data.   |
|                                     | Stop Solution                      | Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness  |

## Section 4. First aid measures

|                     |                                    |   |
|---------------------|------------------------------------|---|
| <b>Inhalation</b>   | : Thermo Sequenase™ / TAP Dilution | No specific data.   |
|                     | Thermo Sequenase™ Reaction Buffer  | No specific data.   |
|                     | pUC18 Control DNA                  | No specific data.   |
|                     | Primer (-40) Forward 23 mer        | No specific data.   |
|                     | dATP Cycle Mix                     | No specific data.   |
|                     | dTTP Cycle Mix                     | No specific data.   |
|                     | dCTP Cycle Mix                     | No specific data.   |
|                     | 7-Deaza-dGTP Cycle Mix             | No specific data.   |
|                     | ddGTP Term Mix                     | No specific data.   |
|                     | ddATP Term Mix                     | No specific data.   |
|                     | ddTTP Term Mix                     | No specific data.   |
|                     | ddCTP Term Mix                     | No specific data.   |
|                     | Stop Solution                      | Adverse symptoms may include the following:<br>reduced fetal weight<br>increase in fetal deaths<br>skeletal malformations |
| <b>Skin contact</b> | : Thermo Sequenase™ / TAP Dilution | No specific data.   |
|                     | Thermo Sequenase™ Reaction Buffer  | No specific data.   |
|                     | pUC18 Control DNA                  | No specific data.   |
|                     | Primer (-40) Forward 23 mer        | No specific data.   |
|                     | dATP Cycle Mix                     | No specific data.   |
|                     | dTTP Cycle Mix                     | No specific data.   |
|                     | dCTP Cycle Mix                     | No specific data.   |
|                     | 7-Deaza-dGTP Cycle Mix             | No specific data.   |
|                     | ddGTP Term Mix                     | No specific data.   |
|                     | ddATP Term Mix                     | No specific data.   |
|                     | ddTTP Term Mix                     | No specific data.   |
|                     | ddCTP Term Mix                     | No specific data.   |
|                     | Stop Solution                      | Adverse symptoms may include the following:<br>reduced fetal weight<br>increase in fetal deaths<br>skeletal malformations |
| <b>Ingestion</b>    | : Thermo Sequenase™ / TAP Dilution | No specific data.   |
|                     | Thermo Sequenase™ Reaction Buffer  | No specific data.   |
|                     | pUC18 Control DNA                  | No specific data.   |
|                     | Primer (-40) Forward 23 mer        | No specific data.   |
|                     | dATP Cycle Mix                     | No specific data.   |
|                     | dTTP Cycle Mix                     | No specific data.   |
|                     | dCTP Cycle Mix                     | No specific data.   |
|                     | 7-Deaza-dGTP Cycle Mix             | No specific data.   |
|                     | ddGTP Term Mix                     | No specific data.   |
|                     | ddATP Term Mix                     | No specific data.   |
|                     | ddTTP Term Mix                     | No specific data.   |
|                     | ddCTP Term Mix                     | No specific data.   |
|                     | Stop Solution                      | Adverse symptoms may include the following:<br>reduced fetal weight<br>increase in fetal deaths<br>skeletal malformations |

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

- Notes to physician** : 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.

## Section 4. First aid measures

- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media**
- |                                   |   |
|-----------------------------------|---|
| Thermo Sequenase™ / TAP Dilution  | Use an extinguishing agent suitable for the surrounding fire. |
| Thermo Sequenase™ Reaction Buffer | Use an extinguishing agent suitable for the surrounding fire. |
| pUC18 Control DNA                 | Use an extinguishing agent suitable for the surrounding fire. |
| Primer (-40) Forward 23 mer       | Use an extinguishing agent suitable for the surrounding fire. |
| dATP Cycle Mix                    | Use an extinguishing agent suitable for the surrounding fire. |
| dTTP Cycle Mix                    | Use an extinguishing agent suitable for the surrounding fire. |
| dCTP Cycle Mix                    | Use an extinguishing agent suitable for the surrounding fire. |
| 7-Deaza-dGTP Cycle Mix            | Use an extinguishing agent suitable for the surrounding fire. |
| ddGTP Term Mix                    | Use an extinguishing agent suitable for the surrounding fire. |
| ddATP Term Mix                    | Use an extinguishing agent suitable for the surrounding fire. |
| ddTTP Term Mix                    | Use an extinguishing agent suitable for the surrounding fire. |
| ddCTP Term Mix                    | Use an extinguishing agent suitable for the surrounding fire. |
| Stop Solution                     | Use an extinguishing agent suitable for the surrounding fire. |

- Unsuitable extinguishing media**
- |                                   |             |
|-----------------------------------|-------------|
| Thermo Sequenase™ / TAP Dilution  | None known. |
| Thermo Sequenase™ Reaction Buffer | None known. |
| pUC18 Control DNA                 | None known. |
| Primer (-40) Forward 23 mer       | None known. |
| dATP Cycle Mix                    | None known. |
| dTTP Cycle Mix                    | None known. |
| dCTP Cycle Mix                    | None known. |
| 7-Deaza-dGTP Cycle Mix            | None known. |
| ddGTP Term Mix                    | None known. |
| ddATP Term Mix                    | None known. |
| ddTTP Term Mix                    | None known. |
| ddCTP Term Mix                    | None known. |
| Stop Solution                     | None known. |

## Section 5. Fire-fighting measures

|   |  |  |
|---|--|--|
| <b>Specific hazards arising from the chemical</b> | <ul style="list-style-type: none"> <li>: Thermo Sequenase™ / TAP Dilution</li> <li>Thermo Sequenase™ Reaction Buffer</li> <li>pUC18 Control DNA</li> <li>Primer (-40) Forward 23 mer</li> <li>dATP Cycle Mix</li> <li>dTTP Cycle Mix</li> <li>dCTP Cycle Mix</li> <li>7-Deaza-dGTP Cycle Mix</li> <li>ddGTP Term Mix</li> <li>ddATP Term Mix</li> <li>ddTTP Term Mix</li> <li>ddCTP Term Mix</li> <li>Stop Solution</li> </ul> | <ul style="list-style-type: none"> <li>In a fire or if heated, a pressure increase will occur and the container may burst.</li> <li>In a fire or if heated, a pressure increase will occur and the container may burst.</li> <li>In a fire or if heated, a pressure increase will occur and the container may burst.</li> <li>In a fire or if heated, a pressure increase will occur and the container may burst.</li> <li>In a fire or if heated, a pressure increase will occur and the container may burst.</li> <li>In a fire or if heated, a pressure increase will occur and the container may burst.</li> <li>In a fire or if heated, a pressure increase will occur and the container may burst.</li> <li>In a fire or if heated, a pressure increase will occur and the container may burst.</li> <li>In a fire or if heated, a pressure increase will occur and the container may burst.</li> <li>In a fire or if heated, a pressure increase will occur and the container may burst.</li> <li>In a fire or if heated, a pressure increase will occur and the container may burst.</li> <li>In a fire or if heated, a pressure increase will occur and the container may burst.</li> <li>In a fire or if heated, a pressure increase will occur and the container may burst.</li> <li>In a fire or if heated, a pressure increase will occur and the container may burst.</li> </ul> |
| <b>Hazardous thermal decomposition products</b>   | <ul style="list-style-type: none"> <li>: Thermo Sequenase™ / TAP Dilution</li> <li>Thermo Sequenase™ Reaction Buffer</li> <li>pUC18 Control DNA</li> <li>Primer (-40) Forward 23 mer</li> <li>dATP Cycle Mix</li> <li>dTTP Cycle Mix</li> <li>dCTP Cycle Mix</li> <li>7-Deaza-dGTP Cycle Mix</li> <li>ddGTP Term Mix</li> <li>ddATP Term Mix</li> <li>ddTTP Term Mix</li> <li>ddCTP Term Mix</li> <li>Stop Solution</li> </ul> | <ul style="list-style-type: none"> <li>Decomposition products may include the following materials:<br/>carbon dioxide<br/>carbon monoxide</li> <li>Decomposition products may include the following materials:<br/>carbon dioxide<br/>carbon monoxide<br/>nitrogen oxides<br/>halogenated compounds<br/>metal oxide/oxides</li> <li>Decomposition products may include the following materials:<br/>carbon dioxide<br/>carbon monoxide<br/>nitrogen oxides<br/>halogenated compounds<br/>metal oxide/oxides</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>Decomposition products may include the following materials:<br/>carbon dioxide<br/>carbon monoxide<br/>nitrogen oxides</li> </ul>  |

## Section 5. Fire-fighting measures

|   |                                    |   |
|---|------------------------------------|---|
| <b>Special protective actions for fire-fighters</b>   | : Thermo Sequenase™ / TAP Dilution | 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. |
|   | Thermo Sequenase™ Reaction Buffer  | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
|   | pUC18 Control DNA                  | 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. |
|   | Primer (-40) Forward 23 mer        | 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. |
|   | dATP Cycle Mix                     | 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. |
|   | dTTP Cycle Mix                     | 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. |
|   | dCTP Cycle Mix                     | 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. |
|   | 7-Deaza-dGTP Cycle Mix             | 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. |
|   | ddGTP Term Mix                     | 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. |
|   | ddATP Term Mix                     | 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. |
|   | ddTTP Term Mix                     | 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. |
|   | ddCTP Term Mix                     | 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. |
|   | Stop Solution                      | 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. |
| <b>Special protective equipment for fire-fighters</b> | : Thermo Sequenase™ / TAP Dilution | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.                         |
|   | Thermo Sequenase™ Reaction Buffer  | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive  |



## Section 5. Fire-fighting measures

|                             |   |
|-----------------------------|---|
| pUC18 Control DNA           | 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. |
| Primer (-40) Forward 23 mer | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.                   |
| dATP Cycle Mix              | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.                   |
| dTTP Cycle Mix              | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.                   |
| dCTP Cycle Mix              | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.                   |
| 7-Deaza-dGTP Cycle Mix      | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.                   |
| ddGTP Term Mix              | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.                   |
| ddATP Term Mix              | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.                   |
| ddTTP Term Mix              | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.                   |
| ddCTP Term Mix              | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.                   |
| Stop Solution               | 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

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

## Section 6. Accidental release measures

**Environmental precautions** : 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).

### Methods and materials for containment and cleaning up

- Small spill** : 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.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Thermo Sequenase™ / TAP Dilution 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.
- Thermo Sequenase™ Reaction Buffer Put on appropriate personal protective equipment (see Section 8).
- pUC18 Control DNA Put on appropriate personal protective equipment (see Section 8).
- Primer (-40) Forward 23 mer Put on appropriate personal protective equipment (see Section 8).
- dATP Cycle Mix Put on appropriate personal protective equipment (see Section 8).
- dTTP Cycle Mix Put on appropriate personal protective equipment (see Section 8).
- dCTP Cycle Mix Put on appropriate personal protective equipment (see Section 8).
- 7-Deaza-dGTP Cycle Mix Put on appropriate personal protective equipment (see Section 8).
- ddGTP Term Mix Put on appropriate personal protective equipment (see Section 8).
- ddATP Term Mix Put on appropriate personal protective equipment (see Section 8).
- ddTTP Term Mix Put on appropriate personal protective equipment (see Section 8).
- ddCTP Term Mix Put on appropriate personal protective equipment (see Section 8).
- Stop Solution Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate

## Section 7. Handling and storage

### Advice on general occupational hygiene

: Thermo Sequenase™ / TAP Dilution

respirator. 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.

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.

Thermo Sequenase™ Reaction Buffer

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

pUC18 Control DNA

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.

Primer (-40) Forward 23 mer

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.

dATP Cycle 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.

dTTP Cycle 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.

dCTP Cycle 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.

7-Deaza-dGTP Cycle 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

## Section 7. Handling and storage

|                |   |
|----------------|---|
| ddGTP Term Mix | 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. |
| ddATP Term 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.   |
| ddTTP Term 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.   |
| ddCTP Term 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.   |
| Stop Solution  | 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.   |

**Conditions for safe storage, including any incompatibilities** : Thermo Sequenase™ / TAP Dilution

|                                   |  |
|-----------------------------------|--|
| Thermo Sequenase™ Reaction 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. |
| pUC18 Control DNA                 | 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   |

## Section 7. Handling and storage

|                             |  |
|-----------------------------|--|
| Primer (-40) Forward 23 mer | 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. 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. |
| dATP Cycle 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.   |
| dTTP Cycle 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.   |
| dCTP Cycle 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.   |
| 7-Deaza-dGTP Cycle 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.   |
| ddGTP Term 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   |

## Section 7. Handling and storage

ddATP Term Mix

containment to avoid environmental contamination. 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

ddTTP Term Mix

containment to avoid environmental contamination. 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

ddCTP Term Mix

containment to avoid environmental contamination. 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

Stop Solution

containment to avoid environmental contamination. Storage temperature: -20°C (-4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. 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.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

| Ingredient name                              | Exposure limits  |
|--|--|
| Thermo Sequenase™ / TAP Dilution<br>glycerol | <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</p> <p><b>OSHA PEL (United States, 2/2013).</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</p> |
| Stop Solution<br>formamide                   | <p><b>ACGIH TLV (United States, 3/2015).</b><br/><b>Absorbed through skin.</b></p>   |



## Section 8. Exposure controls/personal protection

TWA: 10 ppm 8 hours.  
 TWA: 18 mg/m<sup>3</sup> 8 hours.  
**OSHA PEL 1989 (United States, 3/1989).**  
 TWA: 20 ppm 8 hours.  
 TWA: 30 mg/m<sup>3</sup> 8 hours.  
 STEL: 30 ppm 15 minutes.  
 STEL: 45 mg/m<sup>3</sup> 15 minutes.  
**NIOSH REL (United States, 10/2013).**  
**Absorbed through skin.**  
 TWA: 10 ppm 10 hours.  
 TWA: 15 mg/m<sup>3</sup> 10 hours.

- Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- 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** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.



## Section 9. Physical and chemical properties

|                       |                                    |                    |
|-----------------------|------------------------------------|--------------------|
| <b>Physical state</b> | : Thermo Sequenase™ / TAP Dilution | Liquid.            |
|                       | Thermo Sequenase™ Reaction Buffer  | Liquid.            |
|                       | pUC18 Control DNA                  | Liquid.            |
|                       | Primer (-40) Forward 23 mer        | Liquid.            |
|                       | dATP Cycle Mix                     | Liquid.            |
|                       | dTTP Cycle Mix                     | Liquid.            |
|                       | dCTP Cycle Mix                     | Liquid.            |
|                       | 7-Deaza-dGTP Cycle Mix             | Liquid.            |
|                       | ddGTP Term Mix                     | Liquid.            |
|                       | ddATP Term Mix                     | Liquid.            |
|                       | ddTTP Term Mix                     | Liquid.            |
|                       | ddCTP Term Mix                     | Liquid.            |
|                       | Stop Solution                      | Liquid. [Solution] |
| <b>Color</b>          | : Thermo Sequenase™ / TAP Dilution | Not available.     |
|                       | Thermo Sequenase™ Reaction Buffer  | Not available.     |
|                       | pUC18 Control DNA                  | Not available.     |
|                       | Primer (-40) Forward 23 mer        | Not available.     |
|                       | dATP Cycle Mix                     | Not available.     |
|                       | dTTP Cycle Mix                     | Not available.     |
|                       | dCTP Cycle Mix                     | Not available.     |
|                       | 7-Deaza-dGTP Cycle Mix             | Not available.     |
|                       | ddGTP Term Mix                     | Not available.     |
|                       | ddATP Term Mix                     | Not available.     |
|                       | ddTTP Term Mix                     | Not available.     |
|                       | ddCTP Term Mix                     | Not available.     |
|                       | Stop Solution                      | Blue. [Dark]       |
| <b>Odor</b>           | : Thermo Sequenase™ / TAP Dilution | Not available.     |
|                       | Thermo Sequenase™ Reaction Buffer  | Not available.     |
|                       | pUC18 Control DNA                  | Not available.     |
|                       | Primer (-40) Forward 23 mer        | Not available.     |
|                       | dATP Cycle Mix                     | Not available.     |
|                       | dTTP Cycle Mix                     | Not available.     |
|                       | dCTP Cycle Mix                     | Not available.     |
|                       | 7-Deaza-dGTP Cycle Mix             | Not available.     |
|                       | ddGTP Term Mix                     | Not available.     |
|                       | ddATP Term Mix                     | Not available.     |
|                       | ddTTP Term Mix                     | Not available.     |
|                       | ddCTP Term Mix                     | Not available.     |
|                       | Stop Solution                      | Not available.     |
| <b>Flash point</b>    | : Thermo Sequenase™ / TAP Dilution | Not available.     |
|                       | Thermo Sequenase™ Reaction Buffer  | Not available.     |
|                       | pUC18 Control DNA                  | Not available.     |
|                       | Primer (-40) Forward 23 mer        | Not available.     |
|                       | dATP Cycle Mix                     | Not available.     |
|                       | dTTP Cycle Mix                     | Not available.     |
|                       | dCTP Cycle Mix                     | Not available.     |
|                       | 7-Deaza-dGTP Cycle Mix             | Not available.     |
|                       | ddGTP Term Mix                     | Not available.     |
|                       | ddATP Term Mix                     | Not available.     |

## Section 9. Physical and chemical properties

|                                  |                                    |                           |
|----------------------------------|------------------------------------|---------------------------|
|                                  | ddTTP Term Mix                     | Not available.            |
|                                  | ddCTP Term Mix                     | Not available.            |
|                                  | Stop Solution                      | Open cup: 154°C (309.2°F) |
| <b>Auto-ignition temperature</b> | : Thermo Sequenase™ / TAP Dilution | Not available.            |
|                                  | Thermo Sequenase™ Reaction Buffer  | Not available.            |
|                                  | pUC18 Control DNA                  | Not available.            |
|                                  | Primer (-40) Forward 23 mer        | Not available.            |
|                                  | dATP Cycle Mix                     | Not available.            |
|                                  | dTTP Cycle Mix                     | Not available.            |
|                                  | dCTP Cycle Mix                     | Not available.            |
|                                  | 7-Deaza-dGTP Cycle Mix             | Not available.            |
|                                  | ddGTP Term Mix                     | Not available.            |
|                                  | ddATP Term Mix                     | Not available.            |
|                                  | ddTTP Term Mix                     | Not available.            |
|                                  | ddCTP Term Mix                     | Not available.            |
|                                  | Stop Solution                      | Not available.            |
| <b>Flammable limits</b>          | : Thermo Sequenase™ / TAP Dilution | Not available.            |
|                                  | Thermo Sequenase™ Reaction Buffer  | Not available.            |
|                                  | pUC18 Control DNA                  | Not available.            |
|                                  | Primer (-40) Forward 23 mer        | Not available.            |
|                                  | dATP Cycle Mix                     | Not available.            |
|                                  | dTTP Cycle Mix                     | Not available.            |
|                                  | dCTP Cycle Mix                     | Not available.            |
|                                  | 7-Deaza-dGTP Cycle Mix             | Not available.            |
|                                  | ddGTP Term Mix                     | Not available.            |
|                                  | ddATP Term Mix                     | Not available.            |
|                                  | ddTTP Term Mix                     | Not available.            |
|                                  | ddCTP Term Mix                     | Not available.            |
|                                  | Stop Solution                      | Not available.            |
| <b>Molecular weight</b>          | : Thermo Sequenase™ / TAP Dilution | Not applicable.           |
|                                  | Thermo Sequenase™ Reaction Buffer  | Not applicable.           |
|                                  | pUC18 Control DNA                  | Not applicable.           |
|                                  | Primer (-40) Forward 23 mer        | Not applicable.           |
|                                  | dATP Cycle Mix                     | Not applicable.           |
|                                  | dTTP Cycle Mix                     | Not applicable.           |
|                                  | dCTP Cycle Mix                     | Not applicable.           |
|                                  | 7-Deaza-dGTP Cycle Mix             | Not applicable.           |
|                                  | ddGTP Term Mix                     | Not applicable.           |
|                                  | ddATP Term Mix                     | Not applicable.           |
|                                  | ddTTP Term Mix                     | Not applicable.           |
|                                  | ddCTP Term Mix                     | Not applicable.           |
|                                  | Stop Solution                      | Not applicable.           |
| <b>Molecular formula</b>         | : Thermo Sequenase™ / TAP Dilution | Not applicable.           |
|                                  | Thermo Sequenase™ Reaction Buffer  | Not applicable.           |
|                                  | pUC18 Control DNA                  | Not applicable.           |
|                                  | Primer (-40) Forward 23 mer        | Not applicable.           |
|                                  | dATP Cycle Mix                     | Not applicable.           |
|                                  | dTTP Cycle Mix                     | Not applicable.           |
|                                  | dCTP Cycle Mix                     | Not applicable.           |
|                                  | 7-Deaza-dGTP Cycle Mix             | Not applicable.           |

## Section 9. Physical and chemical properties

|                                   |                                    |                           |
|-----------------------------------|------------------------------------|---------------------------|
|                                   | ddGTP Term Mix                     | Not applicable.           |
|                                   | ddATP Term Mix                     | Not applicable.           |
|                                   | ddTTP Term Mix                     | Not applicable.           |
|                                   | ddCTP Term Mix                     | Not applicable.           |
|                                   | Stop Solution                      | Not applicable.           |
| <b>pH</b>                         | : Thermo Sequenase™ / TAP Dilution | Not available.            |
|                                   | Thermo Sequenase™ Reaction Buffer  | Not available.            |
|                                   | pUC18 Control DNA                  | Not available.            |
|                                   | Primer (-40) Forward 23 mer        | Not available.            |
|                                   | dATP Cycle Mix                     | Not available.            |
|                                   | dTTP Cycle Mix                     | Not available.            |
|                                   | dCTP Cycle Mix                     | Not available.            |
|                                   | 7-Deaza-dGTP Cycle Mix             | Not available.            |
|                                   | ddGTP Term Mix                     | Not available.            |
|                                   | ddATP Term Mix                     | Not available.            |
|                                   | ddTTP Term Mix                     | Not available.            |
|                                   | ddCTP Term Mix                     | Not available.            |
|                                   | Stop Solution                      | Not available.            |
| <b>Boiling/condensation point</b> | : Thermo Sequenase™ / TAP Dilution | Not available.            |
|                                   | Thermo Sequenase™ Reaction Buffer  | Not available.            |
|                                   | pUC18 Control DNA                  | Not available.            |
|                                   | Primer (-40) Forward 23 mer        | Not available.            |
|                                   | dATP Cycle Mix                     | Not available.            |
|                                   | dTTP Cycle Mix                     | Not available.            |
|                                   | dCTP Cycle Mix                     | Not available.            |
|                                   | 7-Deaza-dGTP Cycle Mix             | Not available.            |
|                                   | ddGTP Term Mix                     | Not available.            |
|                                   | ddATP Term Mix                     | Not available.            |
|                                   | ddTTP Term Mix                     | Not available.            |
|                                   | ddCTP Term Mix                     | Not available.            |
|                                   | Stop Solution                      | 210°C (410°F)             |
| <b>Melting/freezing point</b>     | : Thermo Sequenase™ / TAP Dilution | Not available.            |
|                                   | Thermo Sequenase™ Reaction Buffer  | Not available.            |
|                                   | pUC18 Control DNA                  | Not available.            |
|                                   | Primer (-40) Forward 23 mer        | Not available.            |
|                                   | dATP Cycle Mix                     | Not available.            |
|                                   | dTTP Cycle Mix                     | Not available.            |
|                                   | dCTP Cycle Mix                     | Not available.            |
|                                   | 7-Deaza-dGTP Cycle Mix             | Not available.            |
|                                   | ddGTP Term Mix                     | Not available.            |
|                                   | ddATP Term Mix                     | Not available.            |
|                                   | ddTTP Term Mix                     | Not available.            |
|                                   | ddCTP Term Mix                     | Not available.            |
|                                   | Stop Solution                      | 2 to 3°C (35.6 to 37.4°F) |
| <b>Relative density</b>           | : Thermo Sequenase™ / TAP Dilution | Not available.            |
|                                   | Thermo Sequenase™ Reaction Buffer  | Not available.            |
|                                   | pUC18 Control DNA                  | Not available.            |
|                                   | Primer (-40) Forward 23 mer        | Not available.            |
|                                   | dATP Cycle Mix                     | Not available.            |
|                                   | dTTP Cycle Mix                     | Not available.            |

## Section 9. Physical and chemical properties

|                       |                                    |   |
|-----------------------|------------------------------------|---|
|                       | dCTP Cycle Mix                     | Not available.                            |
|                       | 7-Deaza-dGTP Cycle Mix             | Not available.                            |
|                       | ddGTP Term Mix                     | Not available.                            |
|                       | ddATP Term Mix                     | Not available.                            |
|                       | ddTTP Term Mix                     | Not available.                            |
|                       | ddCTP Term Mix                     | Not available.                            |
|                       | Stop Solution                      | Not available.                            |
| <b>Vapor pressure</b> | : Thermo Sequenase™ / TAP Dilution | Not available.                            |
|                       | Thermo Sequenase™ Reaction Buffer  | Not available.                            |
|                       | pUC18 Control DNA                  | Not available.                            |
|                       | Primer (-40) Forward 23 mer        | Not available.                            |
|                       | dATP Cycle Mix                     | Not available.                            |
|                       | dTTP Cycle Mix                     | Not available.                            |
|                       | dCTP Cycle Mix                     | Not available.                            |
|                       | 7-Deaza-dGTP Cycle Mix             | Not available.                            |
|                       | ddGTP Term Mix                     | Not available.                            |
|                       | ddATP Term Mix                     | Not available.                            |
|                       | ddTTP Term Mix                     | Not available.                            |
|                       | ddCTP Term Mix                     | Not available.                            |
|                       | Stop Solution                      | 0.011 kPa (0.08 mm Hg) [room temperature] |
| <b>Vapor density</b>  | : Thermo Sequenase™ / TAP Dilution | Not available.                            |
|                       | Thermo Sequenase™ Reaction Buffer  | Not available.                            |
|                       | pUC18 Control DNA                  | Not available.                            |
|                       | Primer (-40) Forward 23 mer        | Not available.                            |
|                       | dATP Cycle Mix                     | Not available.                            |
|                       | dTTP Cycle Mix                     | Not available.                            |
|                       | dCTP Cycle Mix                     | Not available.                            |
|                       | 7-Deaza-dGTP Cycle Mix             | Not available.                            |
|                       | ddGTP Term Mix                     | Not available.                            |
|                       | ddATP Term Mix                     | Not available.                            |
|                       | ddTTP Term Mix                     | Not available.                            |
|                       | ddCTP Term Mix                     | Not available.                            |
|                       | Stop Solution                      | 1.55 [Air = 1]                            |
| <b>Volatility</b>     | : Thermo Sequenase™ / TAP Dilution | Not available.                            |
|                       | Thermo Sequenase™ Reaction Buffer  | Not available.                            |
|                       | pUC18 Control DNA                  | Not available.                            |
|                       | Primer (-40) Forward 23 mer        | Not available.                            |
|                       | dATP Cycle Mix                     | Not available.                            |
|                       | dTTP Cycle Mix                     | Not available.                            |
|                       | dCTP Cycle Mix                     | Not available.                            |
|                       | 7-Deaza-dGTP Cycle Mix             | Not available.                            |
|                       | ddGTP Term Mix                     | Not available.                            |
|                       | ddATP Term Mix                     | Not available.                            |
|                       | ddTTP Term Mix                     | Not available.                            |
|                       | ddCTP Term Mix                     | Not available.                            |
|                       | Stop Solution                      | Not available.                            |

## Section 9. Physical and chemical properties

|  |   |                |
|--|---|----------------|
| <b>Evaporation rate</b>                      | : Thermo Sequenase™ / TAP                       | Not available. |
|  | Dilution  |                |
|  | Thermo Sequenase™                               | Not available. |
|  | Reaction Buffer                                 |                |
|  | pUC18 Control DNA                               | Not available. |
|  | Primer (-40) Forward 23 mer                     | Not available. |
|  | dATP Cycle Mix                                  | Not available. |
|  | dTTP Cycle Mix                                  | Not available. |
|  | dCTP Cycle Mix                                  | Not available. |
|  | 7-Deaza-dGTP Cycle Mix                          | Not available. |
|  | ddGTP Term Mix                                  | Not available. |
|  | ddATP Term Mix                                  | Not available. |
|  | ddTTP Term Mix                                  | Not available. |
|  | ddCTP Term Mix                                  | Not available. |
| Stop Solution                                | <1 (butyl acetate = 1)                          |                |
| <b>Viscosity</b>                             | : Thermo Sequenase™ / TAP                       | Not available. |
|  | Dilution  |                |
|  | Thermo Sequenase™                               | Not available. |
|  | Reaction Buffer                                 |                |
|  | pUC18 Control DNA                               | Not available. |
|  | Primer (-40) Forward 23 mer                     | Not available. |
|  | dATP Cycle Mix                                  | Not available. |
|  | dTTP Cycle Mix                                  | Not available. |
|  | dCTP Cycle Mix                                  | Not available. |
|  | 7-Deaza-dGTP Cycle Mix                          | Not available. |
|  | ddGTP Term Mix                                  | Not available. |
|  | ddATP Term Mix                                  | Not available. |
|  | ddTTP Term Mix                                  | Not available. |
|  | ddCTP Term Mix                                  | Not available. |
| Stop Solution                                | Not available.                                  |                |
| <b>Solubility</b>                            | : Thermo Sequenase™ / TAP                       | Not available. |
|  | Dilution  |                |
|  | Thermo Sequenase™                               | Not available. |
|  | Reaction Buffer                                 |                |
|  | pUC18 Control DNA                               | Not available. |
|  | Primer (-40) Forward 23 mer                     | Not available. |
|  | dATP Cycle Mix                                  | Not available. |
|  | dTTP Cycle Mix                                  | Not available. |
|  | dCTP Cycle Mix                                  | Not available. |
|  | 7-Deaza-dGTP Cycle Mix                          | Not available. |
|  | ddGTP Term Mix                                  | Not available. |
|  | ddATP Term Mix                                  | Not available. |
|  | ddTTP Term Mix                                  | Not available. |
|  | ddCTP Term Mix                                  | Not available. |
| Stop Solution                                | Soluble in the following materials: cold water. |                |
| <b>Physical/chemical properties comments</b> | : Thermo Sequenase™ / TAP                       | Not available. |
|  | Dilution  |                |
|  | Thermo Sequenase™                               | Not available. |
|  | Reaction Buffer                                 |                |
|  | pUC18 Control DNA                               | Not available. |
|  | Primer (-40) Forward 23 mer                     | Not available. |
|  | dATP Cycle Mix                                  | Not available. |
|  | dTTP Cycle Mix                                  | Not available. |
|  | dCTP Cycle Mix                                  | Not available. |
|  | 7-Deaza-dGTP Cycle Mix                          | Not available. |
|  | ddGTP Term Mix                                  | Not available. |
|  | ddATP Term Mix                                  | Not available. |
|  | ddTTP Term Mix                                  | Not available. |
|  | ddCTP Term Mix                                  | Not available. |

## Section 9. Physical and chemical properties

|                |                |
|----------------|----------------|
| ddCTP Term Mix | Not available. |
| Stop Solution  | Not available. |

## Section 10. Stability and reactivity

|                   |                                    |  |
|-------------------|------------------------------------|--|
| <b>Reactivity</b> | : Thermo Sequenase™ / TAP Dilution | No specific test data related to reactivity available for this product or its ingredients. |
|                   | Thermo Sequenase™ Reaction Buffer  | No specific test data related to reactivity available for this product or its ingredients. |
|                   | pUC18 Control DNA                  | No specific test data related to reactivity available for this product or its ingredients. |
|                   | Primer (-40) Forward 23 mer        | No specific test data related to reactivity available for this product or its ingredients. |
|                   | dATP Cycle Mix                     | No specific test data related to reactivity available for this product or its ingredients. |
|                   | dTTP Cycle Mix                     | No specific test data related to reactivity available for this product or its ingredients. |
|                   | dCTP Cycle Mix                     | No specific test data related to reactivity available for this product or its ingredients. |
|                   | 7-Deaza-dGTP Cycle Mix             | No specific test data related to reactivity available for this product or its ingredients. |
|                   | ddGTP Term Mix                     | No specific test data related to reactivity available for this product or its ingredients. |
|                   | ddATP Term Mix                     | No specific test data related to reactivity available for this product or its ingredients. |
|                   | ddTTP Term Mix                     | No specific test data related to reactivity available for this product or its ingredients. |
|                   | ddCTP Term Mix                     | No specific test data related to reactivity available for this product or its ingredients. |
|                   | Stop Solution                      | No specific test data related to reactivity available for this product or its ingredients. |

|                           |                                    |                        |
|---------------------------|------------------------------------|------------------------|
| <b>Chemical stability</b> | : Thermo Sequenase™ / TAP Dilution | The product is stable. |
|                           | Thermo Sequenase™ Reaction Buffer  | The product is stable. |
|                           | pUC18 Control DNA                  | The product is stable. |
|                           | Primer (-40) Forward 23 mer        | The product is stable. |
|                           | dATP Cycle Mix                     | The product is stable. |
|                           | dTTP Cycle Mix                     | The product is stable. |
|                           | dCTP Cycle Mix                     | The product is stable. |
|                           | 7-Deaza-dGTP Cycle Mix             | The product is stable. |
|                           | ddGTP Term Mix                     | The product is stable. |
|                           | ddATP Term Mix                     | The product is stable. |
|                           | ddTTP Term Mix                     | The product is stable. |
|                           | ddCTP Term Mix                     | The product is stable. |
|                           | Stop Solution                      | The product is stable. |

|   |                                    |   |
|---|------------------------------------|---|
| <b>Possibility of hazardous reactions</b> | : Thermo Sequenase™ / TAP Dilution | Under normal conditions of storage and use, hazardous reactions will not occur. |
|   | Thermo Sequenase™ Reaction Buffer  | Under normal conditions of storage and use, hazardous reactions will not occur. |
|   | pUC18 Control DNA                  | Under normal conditions of storage and use, hazardous reactions will not occur. |
|   | Primer (-40) Forward 23 mer        | Under normal conditions of storage and use, hazardous reactions will not occur. |
|   | dATP Cycle Mix                     | Under normal conditions of storage and use, hazardous reactions will not occur. |
|   | dTTP Cycle Mix                     | Under normal conditions of storage and use, hazardous reactions will not occur. |

## Section 10. Stability and reactivity

|                        |  |
|------------------------|--|
| dCTP Cycle Mix         | reactions will not occur.<br>Under normal conditions of storage and use, hazardous reactions will not occur. |
| 7-Deaza-dGTP Cycle Mix | Under normal conditions of storage and use, hazardous reactions will not occur.                              |
| ddGTP Term Mix         | Under normal conditions of storage and use, hazardous reactions will not occur.                              |
| ddATP Term Mix         | Under normal conditions of storage and use, hazardous reactions will not occur.                              |
| ddTTP Term Mix         | Under normal conditions of storage and use, hazardous reactions will not occur.                              |
| ddCTP Term Mix         | Under normal conditions of storage and use, hazardous reactions will not occur.                              |
| Stop Solution          | Under normal conditions of storage and use, hazardous reactions will not occur.                              |

|                            |                                    |                   |
|----------------------------|------------------------------------|-------------------|
| <b>Conditions to avoid</b> | : Thermo Sequenase™ / TAP Dilution | No specific data. |
|                            | Thermo Sequenase™ Reaction Buffer  | No specific data. |
|                            | pUC18 Control DNA                  | No specific data. |
|                            | Primer (-40) Forward 23 mer        | No specific data. |
|                            | dATP Cycle Mix                     | No specific data. |
|                            | dTTP Cycle Mix                     | No specific data. |
|                            | dCTP Cycle Mix                     | No specific data. |
|                            | 7-Deaza-dGTP Cycle Mix             | No specific data. |
|                            | ddGTP Term Mix                     | No specific data. |
|                            | ddATP Term Mix                     | No specific data. |
|                            | ddTTP Term Mix                     | No specific data. |
|                            | ddCTP Term Mix                     | No specific data. |
|                            | Stop Solution                      | No specific data. |

|                               |                                    |                   |
|-------------------------------|------------------------------------|-------------------|
| <b>Incompatible materials</b> | : Thermo Sequenase™ / TAP Dilution | No specific data. |
|                               | Thermo Sequenase™ Reaction Buffer  | No specific data. |
|                               | pUC18 Control DNA                  | No specific data. |
|                               | Primer (-40) Forward 23 mer        | No specific data. |
|                               | dATP Cycle Mix                     | No specific data. |
|                               | dTTP Cycle Mix                     | No specific data. |
|                               | dCTP Cycle Mix                     | No specific data. |
|                               | 7-Deaza-dGTP Cycle Mix             | No specific data. |
|                               | ddGTP Term Mix                     | No specific data. |
|                               | ddATP Term Mix                     | No specific data. |
|                               | ddTTP Term Mix                     | No specific data. |
|                               | ddCTP Term Mix                     | No specific data. |
|                               | Stop Solution                      | No specific data. |

|   |                                    |  |
|---|------------------------------------|--|
| <b>Hazardous decomposition products</b> | : Thermo Sequenase™ / TAP Dilution | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
|   | Thermo Sequenase™ Reaction Buffer  | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
|   | pUC18 Control DNA                  | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
|   | Primer (-40) Forward 23 mer        | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
|   | dATP Cycle Mix                     | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |



## Section 10. Stability and reactivity

|                        |  |
|------------------------|--|
| dTTP Cycle Mix         | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| dCTP Cycle Mix         | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| 7-Deaza-dGTP Cycle Mix | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| ddGTP Term Mix         | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| ddATP Term Mix         | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| ddTTP Term Mix         | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| ddCTP Term Mix         | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| Stop Solution          | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name  | Result                   | Species       | Dose                       | Exposure |
|--|--------------------------|---------------|----------------------------|----------|
| <b>Thermo Sequenase™ / TAP Dilution</b><br>glycerol  | LD50 Dermal<br>LD50 Oral | Rat<br>Rat    | 21900 mg/kg<br>12600 mg/kg | -<br>-   |
| <b>pUC18 Control DNA</b><br>Glycine, N,N'-1,<br>2-ethanediybis[N-<br>(carboxymethyl)-, sodium salt,<br>hydrate (1:2:2) | LD50 Oral                | Rat           | 2000 mg/kg                 | -        |
| <b>Stop Solution</b><br>formamide  | LD50 Dermal<br>LD50 Oral | Rabbit<br>Rat | 17 g/kg<br>4000 mg/kg      | -<br>-   |

#### Irritation/Corrosion

| Product/ingredient name                                | Result                   | Species | Score | Exposure                | Observation |
|--|--------------------------|---------|-------|-------------------------|-------------|
| <b>Thermo Sequenase™ / TAP Dilution</b><br>glycerol    | Eyes - Mild irritant     | Rabbit  | -     | 24 hours 500 milligrams | -           |
|  | Skin - Mild irritant     | Rabbit  | -     | 24 hours 500 milligrams | -           |
| <b>Thermo Sequenase™ Reaction Buffer</b><br>trometamol | Skin - Moderate irritant | Rabbit  | -     | 25 Percent              | -           |
|  | Skin - Severe irritant   | Rabbit  | -     | 500 milligrams          | -           |
|  | Skin - Moderate irritant | Woman   | -     | 1 Percent               | -           |
| <b>pUC18 Control DNA</b><br>trometamol                 | Skin - Moderate irritant | Rabbit  | -     | 25 Percent              | -           |
|  | Skin - Severe irritant   | Rabbit  | -     | 500 milligrams          | -           |
|  | Skin - Moderate irritant | Woman   | -     | 1 Percent               | -           |

## Section 11. Toxicological information

|                                   |                        |        |   |                   |   |
|-----------------------------------|------------------------|--------|---|-------------------|---|
| <b>Stop Solution</b><br>formamide | Eyes - Severe irritant | Rabbit | - | 100<br>milligrams | - |
|-----------------------------------|------------------------|--------|---|-------------------|---|

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

| Name  | Category   | Route of exposure | Target organs                |
|---|------------|-------------------|------------------------------|
| <b>Thermo Sequenase™ Reaction Buffer</b><br>trometamol                              | Category 3 | Not applicable.   | Respiratory tract irritation |
| <b>pUC18 Control DNA</b><br>2-amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride | Category 3 | Not applicable.   | Respiratory tract irritation |
| trometamol  | Category 3 | Not applicable.   | Respiratory tract irritation |

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

**Eye contact** :  
**Inhalation** :  
**Skin contact** :  
**Ingestion** :

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

**Eye contact** :  
**Inhalation** :  
**Skin contact** :  
**Ingestion** :

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

## Section 11. Toxicological information

### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Long term exposure

**Potential immediate effects** :

**Potential delayed effects** :

### Potential chronic health effects

Not available.

**General** :

**Carcinogenicity** :

**Mutagenicity** :

**Teratogenicity** :

**Developmental effects** :

**Fertility effects** :

### Numerical measures of toxicity

#### Acute toxicity estimates

| Route                            | ATE value      |
|----------------------------------|----------------|
| <b>pUC18 Control DNA</b><br>Oral | 107469.1 mg/kg |
| <b>Stop Solution</b><br>Oral     | 4210.5 mg/kg   |

**Interactive effects** :

**Other information** :

## Section 12. Ecological information

### Toxicity

Not available.

### Persistence and degradability

Not available.

### Bioaccumulative potential

| Product/ingredient name                             | LogP <sub>ow</sub> | BCF | Potential |
|---|--------------------|-----|-----------|
| <b>Thermo Sequenase™ / TAP Dilution</b><br>glycerol | -1.76              | -   | low       |
| <b>Stop Solution</b><br>formamide                   | -0.82              | -   | low       |

### Mobility in soil

## Section 12. Ecological information

|  |                                    |                |
|--|------------------------------------|----------------|
| <b>Soil/water partition coefficient (K<sub>oc</sub>)</b> | : Thermo Sequenase™ / TAP Dilution | Not available. |
|  | Thermo Sequenase™ Reaction Buffer  | Not available. |
|  | pUC18 Control DNA                  | Not available. |
|  | Primer (-40) Forward 23 mer        | Not available. |
|  | dATP Cycle Mix                     | Not available. |
|  | dTTP Cycle Mix                     | Not available. |
|  | dCTP Cycle Mix                     | Not available. |
|  | 7-Deaza-dGTP Cycle Mix             | Not available. |
|  | ddGTP Term Mix                     | Not available. |
|  | ddATP Term Mix                     | Not available. |
|  | ddTTP Term Mix                     | Not available. |
|  | ddCTP Term Mix                     | Not available. |
|  | Stop Solution                      | Not available. |

**Mobility** :

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

## Section 13. Disposal considerations

**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.

## Section 14. Transport information

|                                   | <b>DOT Classification</b> | <b>TDG Classification</b> | <b>Mexico Classification</b> | <b>ADR/RID</b> | <b>IMDG</b>    | <b>IATA</b>    |
|-----------------------------------|---------------------------|---------------------------|------------------------------|----------------|----------------|----------------|
| <b>UN number</b>                  | Not regulated.            | Not regulated.            | Not regulated.               | Not regulated. | Not regulated. | Not regulated. |
| <b>UN proper shipping name</b>    | -                         | -                         | -                            | -              | -              | -              |
| <b>Transport hazard class(es)</b> | -                         | -                         | -                            | -              | -              | -              |
| <b>Packing group</b>              | -                         | -                         | -                            | -              | -              | -              |
| <b>Environmental hazards</b>      | No.                       | No.                       | No.                          | No.            | No.            | No.            |
| <b>Additional information</b>     | -                         | -                         | -                            | -              | -              | -              |

## Section 14. Transport information

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

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations** : **TSCA 8(a) PAIR:** formamide; Poly(oxy-1,2-ethanediyl),  $\alpha$ -[4-(1,1,3,3-tetramethylbutyl)phenyl]- $\omega$ -hydroxy-  
**TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**United States inventory (TSCA 8b):** Not determined.

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

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

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

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

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

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : Immediate (acute) health hazard  
 Delayed (chronic) health hazard

#### Composition/information on ingredients

| Name  | %       | Fire hazard | Sudden release of pressure | Reactive | Immediate (acute) health hazard | Delayed (chronic) health hazard |
|---|---------|-------------|----------------------------|----------|---------------------------------|---------------------------------|
| <b>Thermo Sequenase™ / TAP Dilution</b><br>glycerol                                 | 25 - 50 | No.         | No.                        | No.      | Yes.                            | No.                             |
| <b>Thermo Sequenase™ Reaction Buffer</b><br>trometamol                              | 1 - 10  | No.         | No.                        | No.      | Yes.                            | No.                             |
| <b>pUC18 Control DNA</b><br>2-amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride | 1 - 10  | No.         | No.                        | No.      | Yes.                            | No.                             |
| Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, sodium salt, hydrate (1:2:2)]   | 1 - 10  | No.         | No.                        | No.      | Yes.                            | No.                             |
| trometamol  | 1 - 10  | No.         | No.                        | No.      | Yes.                            | No.                             |

## Section 15. Regulatory information

|                                   |         |     |     |     |      |      |
|-----------------------------------|---------|-----|-----|-----|------|------|
| <b>Stop Solution</b><br>formamide | 50 - 95 | No. | No. | No. | Yes. | Yes. |
|-----------------------------------|---------|-----|-----|-----|------|------|

### State regulations

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

**WARNING:** This product contains less than 0.1% of a chemical known to the State of California to cause cancer.

| Ingredient name   | Cancer | Reproductive | No significant risk level | Maximum acceptable dosage level |
|---|--------|--------------|---------------------------|---------------------------------|
| <b>Thermo Sequenase™ / TAP Dilution</b><br>Poly(oxy-1,2-ethanediyl), $\alpha$ -[4-(1,1,3,3-tetramethylbutyl)phenyl]- $\omega$ -hydroxy- | Yes.   | No.          | No.                       | No.                             |

### International regulations

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

Not listed.

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

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

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

Not listed.

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

Not listed.

### Canada

- WHMIS (Canada)** :
- |                                   |   |
|-----------------------------------|---|
| Thermo Sequenase™ / TAP Dilution  | Not controlled under WHMIS (Canada).                      |
| Thermo Sequenase™ Reaction Buffer | Class D-2B: Material causing other toxic effects (Toxic). |
| pUC18 Control DNA                 | Class D-2B: Material causing other toxic effects (Toxic). |
| Primer (-40) Forward 23 mer       | Not controlled under WHMIS (Canada).                      |
| dATP Cycle Mix                    | Not controlled under WHMIS (Canada).                      |
| dTTP Cycle Mix                    | Not controlled under WHMIS (Canada).                      |
| dCTP Cycle Mix                    | Not controlled under WHMIS (Canada).                      |
| 7-Deaza-dGTP Cycle Mix            | Not controlled under WHMIS (Canada).                      |
| ddGTP Term Mix                    | Not controlled under WHMIS (Canada).                      |
| ddATP Term Mix                    | Not controlled under WHMIS (Canada).                      |
| ddTTP Term Mix                    | Not controlled under WHMIS (Canada).                      |
| ddCTP Term Mix                    | Not controlled under WHMIS (Canada).                      |
| Stop Solution                     | Class D-2B: Material causing other toxic effects (Toxic). |

### Canadian lists

- Canadian NPRI** : None of the components are listed.
- CEPA Toxic substances** : None of the components are listed.
- Canada inventory** : Not determined.

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

|                  |   |
|------------------|---|
| Health           | 0 |
| Flammability     | 0 |
| Physical hazards | 0 |
|                  |   |

The customer is responsible for determining the PPE code for this material.

### National Fire Protection Association (U.S.A.)



### History

**Date of issue/Date of revision** : 01/05/2016.

**Date of previous issue** : No previous validation.

**Version** : 1

### 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 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 UN = United Nations

▣ Indicates information that has changed from previously issued version.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.