Section 1. Identification

1.1 Product identifier

Product name: SureSelect XT2 Pre-Capture Hybridization - Box 2 - 1 Reaction, Part Number 5190-3938

Part No. (Chemical Kit): 5190-3938

Part No.: SureSelect RNase Block 5190-1976
SureSelect XT2 Hybridization Buffer 5190-4078
SureSelect XT2 Blocking Mix 5190-4079

Validation date: 2016-02-29

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

Material uses: Analytical reagent.

SureSelect RNase Block: 0.05 ml
SureSelect XT2 Hybridization Buffer: 0.037 ml
SureSelect XT2 Blocking Mix: 0.009 ml

1.3 Details of the supplier of the safety data sheet

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

1.4 Emergency telephone number

In case of emergency: CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status: SureSelect RNase Block
SureSelect XT2 Hybridization Buffer
SureSelect XT2 Blocking Mix

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

Classification of the substance or mixture

SureSelect RNase Block
H320 EYE IRRITATION - Category 2B

SureSelect XT2 Hybridization Buffer
H319 EYE IRRITATION - Category 2A

Ingredients of unknown toxicity

SureSelect RNase Block
SureSelect XT2 Hybridization Buffer
SureSelect XT2 Blocking Mix

Not applicable.

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 1.4%
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 1%
Section 2. Hazards identification

2.2 GHS label elements

Hazard pictograms:

Signal word:
- SureSelect RNase Block: Warning
- SureSelect XT2 Hybridization Buffer: Warning
- SureSelect XT2 Blocking Mix: No signal word.

Hazard statements:
- SureSelect RNase Block: H320 - Causes eye irritation.
- GHS SYMBOL - Exclamation mark -
- SureSelect XT2 Hybridization Buffer: H319 - Causes serious eye irritation.
- No known significant effects or critical hazards.
- SureSelect XT2 Blocking Mix: No signal word.

Precautionary statements:

Prevention:
- SureSelect RNase Block: P264 - Wash hands thoroughly after handling.
- P280 - Wear eye or face protection.
- SureSelect XT2 Hybridization Buffer: P264 - Wash hands thoroughly after handling.
- Not applicable.
- SureSelect XT2 Blocking Mix: Not applicable.

Response:
- SureSelect RNase Block: P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313 - If eye irritation persists: Get medical attention.
- SureSelect XT2 Hybridization Buffer: P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313 - If eye irritation persists: Get medical attention.
- SureSelect XT2 Blocking Mix: Not applicable.

Storage:
- SureSelect RNase Block: Not applicable.
- SureSelect XT2 Hybridization Buffer: Not applicable.
- SureSelect XT2 Blocking Mix: Not applicable.

Disposal:
- SureSelect RNase Block: Not applicable.
- SureSelect XT2 Hybridization Buffer: Not applicable.
- SureSelect XT2 Blocking Mix: Not applicable.

Supplemental label elements:
- None known.

2.3 Other hazards

Hazard not otherwise classified:
- None known.
Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>SureSelect RNase Block</td>
<td>Glycerol</td>
<td>≥50 - ≤75</td>
<td>56-81-5</td>
</tr>
<tr>
<td>SureSelect XT2 Hybridization Buffer</td>
<td>Sodium chloride</td>
<td>≤10</td>
<td>7647-14-5</td>
</tr>
<tr>
<td></td>
<td>Sodium dodecyl sulphate</td>
<td>≤3</td>
<td>151-21-3</td>
</tr>
<tr>
<td></td>
<td>Phosphoric acid, monosodium salt, monohydrate</td>
<td>≤3</td>
<td>10049-21-5</td>
</tr>
</tbody>
</table>

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

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

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

Section 4. First aid measures

4.1 Description of necessary first aid measures

**Eye contact**

SureSelect RNase Block: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.

SureSelect XT2 Hybridization Buffer: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

SureSelect XT2 Blocking 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.

**Inhalation**

SureSelect RNase Block: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

SureSelect XT2 Hybridization Buffer: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position.
Section 4. First aid measures

SureSelect XT2 Blocking Mix

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.

Skin contact

SureSelect RNase Block

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SureSelect XT2 Hybridization Buffer

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SureSelect XT2 Blocking Mix

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

Ingestion

SureSelect RNase Block

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

SureSelect XT2 Hybridization Buffer

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

SureSelect XT2 Blocking 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
Section 4. First aid measures

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: SureSelect RNase Block
SureSelect XT2 Hybridization Buffer
SureSelect XT2 Blocking Mix

Causes eye irritation.
Causes serious eye irritation.
No known significant effects or critical hazards.

Inhalation:
SureSelect RNase Block
SureSelect XT2 Hybridization Buffer
SureSelect XT2 Blocking Mix

No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.

Skin contact:
SureSelect RNase Block
SureSelect XT2 Hybridization Buffer
SureSelect XT2 Blocking Mix

No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.

Ingestion:
SureSelect RNase Block
SureSelect XT2 Hybridization Buffer
SureSelect XT2 Blocking Mix

No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact:
SureSelect RNase Block
SureSelect XT2 Hybridization Buffer
SureSelect XT2 Blocking Mix

Adverse symptoms may include the following:
irritation
watering
redness

Adverse symptoms may include the following:
pain or irritation
watering
redness

No specific data.

Inhalation:
SureSelect RNase Block
SureSelect XT2 Hybridization Buffer
SureSelect XT2 Blocking Mix

No specific data.
No specific data.
No specific data.

Skin contact:
SureSelect RNase Block
SureSelect XT2 Hybridization Buffer
SureSelect XT2 Blocking Mix

No specific data.
No specific data.
No specific data.

Ingestion:
SureSelect RNase Block
SureSelect XT2 Hybridization Buffer
SureSelect XT2 Blocking Mix

No specific data.
No specific data.
No specific data.

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

Date of issue: 02/29/2016
### Section 4. First aid measures

<table>
<thead>
<tr>
<th>Notes to physician</th>
<th>SureSelect RNase Block</th>
<th>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SureSelect XT2 Hybridization Buffer</td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
</tr>
<tr>
<td></td>
<td>SureSelect XT2 Blocking Mix</td>
<td>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.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific treatments</th>
<th>SureSelect RNase Block</th>
<th>No specific treatment.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SureSelect XT2 Hybridization Buffer</td>
<td>No specific treatment.</td>
</tr>
<tr>
<td></td>
<td>SureSelect XT2 Blocking Mix</td>
<td>No specific treatment.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Protection of first-aiders</th>
<th>SureSelect RNase Block</th>
<th>No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SureSelect XT2 Hybridization Buffer</td>
<td>No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.</td>
</tr>
<tr>
<td></td>
<td>SureSelect XT2 Blocking Mix</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
</tbody>
</table>

See toxicological information (Section 11)

### Section 5. Fire-fighting measures

#### 5.1 Extinguishing media

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>SureSelect RNase Block</th>
<th>Use an extinguishing agent suitable for the surrounding fire.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SureSelect XT2 Hybridization Buffer</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
<tr>
<td></td>
<td>SureSelect XT2 Blocking Mix</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unsuitable extinguishing media</th>
<th>SureSelect RNase Block</th>
<th>None known.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SureSelect XT2 Hybridization Buffer</td>
<td>None known.</td>
</tr>
<tr>
<td></td>
<td>SureSelect XT2 Blocking Mix</td>
<td>None known.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Specific hazards arising from the chemical</th>
<th>SureSelect RNase Block</th>
<th>In a fire or if heated, a pressure increase will occur and the container may burst.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SureSelect XT2 Hybridization Buffer</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
<tr>
<td></td>
<td>SureSelect XT2 Blocking Mix</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hazardous thermal decomposition products</th>
<th>SureSelect RNase Block</th>
<th>Decomposition products may include the following materials: carbon dioxide, carbon monoxide.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SureSelect XT2 Hybridization Buffer</td>
<td>Decomposition products may include the following materials: carbon dioxide, carbon monoxide, sulfur oxides.</td>
</tr>
</tbody>
</table>

Date of issue: 02/29/2016
Section 5. Fire-fighting measures

5.3 Advice for firefighters

Special protective actions for fire-fighters:
- SureSelect RNase Block
  - Decomposition products may include the following materials:
    - phosphorus oxides
    - halogenated compounds
    - metal oxide/oxides
  - Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

- SureSelect XT2 Hybridization Buffer
  - Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

- SureSelect XT2 Blocking 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.

Special protective equipment for fire-fighters:
- SureSelect RNase Block
  - Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

- SureSelect XT2 Hybridization Buffer
  - Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

- SureSelect XT2 Blocking Mix
  - Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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

- SureSelect XT2 Hybridization Buffer
  - No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

- SureSelect XT2 Blocking Mix
  - No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Section 6. Accidental release measures

For emergency responders:

SureSelect RNase Block

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

SureSelect XT2 Hybridization Buffer

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

SureSelect XT2 Blocking Mix

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions:

SureSelect RNase Block

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

SureSelect XT2 Hybridization Buffer

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

SureSelect XT2 Blocking Mix

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

6.3 Methods and materials for containment and cleaning up:

Methods for cleaning up:

SureSelect RNase Block

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

SureSelect XT2 Hybridization Buffer

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

SureSelect XT2 Blocking Mix

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
## Section 7. Handling and storage

### 7.1 Precautions for safe handling

<table>
<thead>
<tr>
<th>Protective measures</th>
<th>SureSelect RNase Block</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>

| SureSelect XT2 Hybridization Buffer | Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. |

| SureSelect XT2 Blocking Mix | Put on appropriate personal protective equipment (see Section 8). |

<table>
<thead>
<tr>
<th>Advice on general occupational hygiene</th>
<th>SureSelect RNase Block</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>

| SureSelect XT2 Hybridization Buffer | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |

| SureSelect XT2 Blocking 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. |

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

<table>
<thead>
<tr>
<th>SureSelect RNase Block</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>

| SureSelect XT2 Hybridization 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 |

---

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Section 7. Handling and storage

SureSelect XT2 Blocking 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.

7.3 Specific end use(s)

Recommendations:
- SureSelect RNase Block
- SureSelect XT2 Hybridization Buffer
- SureSelect XT2 Blocking Mix

Industrial sector specific solutions:
- SureSelect RNase Block
- SureSelect XT2 Hybridization Buffer
- SureSelect XT2 Blocking Mix

Not applicable.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SureSelect RNase Block</td>
<td>OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction</td>
</tr>
<tr>
<td>Glycerol</td>
<td>OSHA PEL 1989 (United States, 3/1989). TWA: 10 mg/m³ 8 hours. Form: Total dust</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 2/2013). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 2/2013). TWA: 15 mg/m³ 8 hours. Form: Total dust</td>
</tr>
<tr>
<td>SureSelect XT2 Hybridization Buffer</td>
<td>None.</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>None.</td>
</tr>
<tr>
<td>Sodium dodecyl sulphate</td>
<td>None.</td>
</tr>
<tr>
<td>Phosphoric acid, monosodium salt, monohydrate</td>
<td>None.</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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

Individual protection measures
Section 8. Exposure controls/personal protection

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

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

**Skin protection**

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

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

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

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

Section 9. Physical and chemical properties

**9.1 Information on basic physical and chemical properties**

**Appearance**

**Physical state**
- SureSelect RNase Block: Liquid.
- SureSelect XT2 Hybridization Buffer: Liquid.
- SureSelect XT2 Blocking Mix: Liquid.

**Color**
- SureSelect RNase Block: Not available.
- SureSelect XT2 Hybridization Buffer: Not available.
- SureSelect XT2 Blocking Mix: Not available.

**Odor**
- SureSelect RNase Block: Not available.
- SureSelect XT2 Hybridization Buffer: Not available.
- SureSelect XT2 Blocking Mix: Not available.

**Odor threshold**
- SureSelect RNase Block: Not available.
- SureSelect XT2 Hybridization Buffer: Not available.
- SureSelect XT2 Blocking Mix: Not available.

**pH**
- SureSelect RNase Block: 7.6
- SureSelect XT2 Hybridization Buffer: 7.4
- SureSelect XT2 Blocking Mix: 7.5

**Melting point**
- SureSelect RNase Block: Not available.
- SureSelect XT2 Hybridization Buffer: Not available.
- SureSelect XT2 Blocking Mix: 0°C (32°F)
## Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>SureSelect RNase Block</th>
<th>SureSelect XT2 Hybridization Buffer</th>
<th>SureSelect XT2 Blocking Mix</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Boiling point</strong></td>
<td>Not available.</td>
<td>100°C (212°F)</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Lower and upper explosive (flammable) limits</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Vapor pressure</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Vapor density</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Solubility</strong></td>
<td>Soluble in the following materials: cold water and hot water.</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Partition coefficient: n-octanol/water</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

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Section 10. Stability and reactivity

10.1 Reactivity
- SureSelect RNase Block: No specific test data related to reactivity available for this product or its ingredients.
- SureSelect XT2 Hybridization Buffer: No specific test data related to reactivity available for this product or its ingredients.
- SureSelect XT2 Blocking Mix: No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability
- SureSelect RNase Block: The product is stable.
- SureSelect XT2 Hybridization Buffer: The product is stable.
- SureSelect XT2 Blocking Mix: The product is stable.

10.3 Possibility of hazardous reactions
- SureSelect RNase Block: Under normal conditions of storage and use, hazardous reactions will not occur.
- SureSelect XT2 Hybridization Buffer: Under normal conditions of storage and use, hazardous reactions will not occur.
- SureSelect XT2 Blocking Mix: Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid
- SureSelect RNase Block: No specific data.
- SureSelect XT2 Hybridization Buffer: No specific data.
- SureSelect XT2 Blocking Mix: No specific data.

10.5 Incompatible materials
- SureSelect RNase Block: May react or be incompatible with oxidizing materials.
- SureSelect XT2 Hybridization Buffer: May react or be incompatible with oxidizing materials.
- SureSelect XT2 Blocking Mix: May react or be incompatible with oxidizing materials.

10.6 Hazardous decomposition products
- SureSelect RNase Block: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- SureSelect XT2 Hybridization Buffer: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- SureSelect XT2 Blocking Mix: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

11.1 Information on toxicological effects

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>12600 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>3000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Sodium dodecyl sulphate</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>580 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1288 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

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### Section 11. Toxicological information

#### Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SureSelect RNase Block</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>SureSelect XT2</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Hybridization Buffer</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>10 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>250 Micrograms</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Sodium dodecyl sulphate</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>10 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 25 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Guinea pig</td>
<td>-</td>
<td>24 hours 25 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Moderate irritant</td>
<td>Mouse</td>
<td>-</td>
<td>24 hours 25 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 50 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 25 milligrams</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Sensitization
- Not available.

#### Mutagenicity
- Not available.

#### Carcinogenicity
- Not available.

#### Reproductive toxicity
- Not available.

#### Teratogenicity
- Not available.

#### Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>SureSelect XT2 Hybridization Buffer</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>Sodium dodecyl sulphate</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>Phosphoric acid, monosodium salt, monohydrate</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
</tbody>
</table>

#### Specific target organ toxicity (repeated exposure)
- Not available.

#### Aspiration hazard
- Not available.

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Not available.

Information on the likely routes of exposure:

SureSelect RNase Block: Routes of entry anticipated: Oral, Dermal, Inhalation.
SureSelect XT2 Hybridization Buffer: Routes of entry anticipated: Oral, Dermal, Inhalation.
SureSelect XT2 Blocking Mix: Not available.

Potential acute health effects:

Eye contact:
SureSelect RNase Block: Causes eye irritation.
SureSelect XT2 Hybridization Buffer: Causes serious eye irritation.
SureSelect XT2 Blocking Mix: No known significant effects or critical hazards.

Inhalation:
SureSelect RNase Block: No known significant effects or critical hazards.
SureSelect XT2 Hybridization Buffer: No known significant effects or critical hazards.
SureSelect XT2 Blocking Mix: No known significant effects or critical hazards.

Skin contact:
SureSelect RNase Block: No known significant effects or critical hazards.
SureSelect XT2 Hybridization Buffer: No known significant effects or critical hazards.
SureSelect XT2 Blocking Mix: No known significant effects or critical hazards.

Ingestion:
SureSelect RNase Block: No known significant effects or critical hazards.
SureSelect XT2 Hybridization Buffer: No known significant effects or critical hazards.
SureSelect XT2 Blocking Mix: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics:

Eye contact:
SureSelect RNase Block: Adverse symptoms may include the following:
- Irritation
- Watering
- Redness
SureSelect XT2 Hybridization Buffer: Adverse symptoms may include the following:
- Pain or irritation
- Watering
- Redness
SureSelect XT2 Blocking Mix: No specific data.

Inhalation:
SureSelect RNase Block: No specific data.
SureSelect XT2 Hybridization Buffer: No specific data.
SureSelect XT2 Blocking Mix: No specific data.

Skin contact:
SureSelect RNase Block: No specific data.
SureSelect XT2 Hybridization Buffer: No specific data.
SureSelect XT2 Blocking Mix: No specific data.

Ingestion:
SureSelect RNase Block: No specific data.
SureSelect XT2 Hybridization Buffer: No specific data.
SureSelect XT2 Blocking Mix: No specific data.

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

Short term exposure:
Potential immediate effects: Not available.
Potential delayed effects: Not available.

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Long term exposure

Potential immediate effects: Not available.
Potential delayed effects: Not available.

Potential chronic health effects

General:
SureSelect RNase Block: No known significant effects or critical hazards.
SureSelect XT2 Hybridization Buffer: No known significant effects or critical hazards.
SureSelect XT2 Blocking Mix: No known significant effects or critical hazards.

Carcinogenicity:
SureSelect RNase Block: No known significant effects or critical hazards.
SureSelect XT2 Hybridization Buffer: No known significant effects or critical hazards.
SureSelect XT2 Blocking Mix: No known significant effects or critical hazards.

Mutagenicity:
SureSelect RNase Block: No known significant effects or critical hazards.
SureSelect XT2 Hybridization Buffer: No known significant effects or critical hazards.
SureSelect XT2 Blocking Mix: No known significant effects or critical hazards.

Teratogenicity:
SureSelect RNase Block: No known significant effects or critical hazards.
SureSelect XT2 Hybridization Buffer: No known significant effects or critical hazards.
SureSelect XT2 Blocking Mix: No known significant effects or critical hazards.

Developmental effects:
SureSelect RNase Block: No known significant effects or critical hazards.
SureSelect XT2 Hybridization Buffer: No known significant effects or critical hazards.
SureSelect XT2 Blocking Mix: No known significant effects or critical hazards.

Fertility effects:
SureSelect RNase Block: No known significant effects or critical hazards.
SureSelect XT2 Hybridization Buffer: No known significant effects or critical hazards.
SureSelect XT2 Blocking Mix: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SureSelect XT2 Hybridization Buffer Oral</td>
<td>19924.5 mg/kg</td>
</tr>
<tr>
<td>SureSelect XT2 Hybridization Buffer Dermal</td>
<td>21862 mg/kg</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

12.1 Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>SureSelect RNase Block</td>
<td>Acute LC50 54000 mg/l Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SureSelect XT2 Hybridization Buffer Sodium chloride</td>
<td>Acute EC50 2430000 µg/l Fresh water</td>
<td>Algae - Navicula seminulum</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 28.85 mg/dm3 Fresh water</td>
<td>Algae - Pseudokirchneriella subcapitata</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 519.6 mg/l Fresh water</td>
<td>Crustaceans - Cypris subglobosa</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute IC50 6.87 g/L Fresh water</td>
<td>Aquatic plants - Lemna minor</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

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Section 12. Ecological information

### 12.2 Persistence and degradability

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium dodecyl sulphate</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

### 12.3 Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>SureSelect RNase Block Glycerol</td>
<td>-1.76</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>SureSelect XT2 Hybridization Buffer</td>
<td>-2.03</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

### 12.4 Mobility in soil

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

### 12.5 Other adverse effects

**No known significant effects or critical hazards.**

Section 13. Disposal considerations

### 13.1 Waste treatment methods

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

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Section 13. Disposal considerations

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

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

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

Section 14. Transport information

Regulatory information

DOT / IMDG / IATA: Not regulated.

Section 15. Regulatory information

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

U.S. Federal regulations: United States inventory (TSCA 8b): All components are listed or exempted.
Clean Water Act (CWA) 311: Potassium hydroxide; Edetic acid; Sodium hydroxide

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs): Not listed
Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed
DEA List I Chemicals (Precursor Chemicals): Not listed
DEA List II Chemicals (Essential Chemicals): Not listed
SARA 302/304
Composition/information on ingredients:
No products were found.

SARA 304 RQ: Not applicable.
SARA 311/312
Classification: Immediate (acute) health hazard
Composition/information on ingredients:

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Section 15. Regulatory information

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Fire hazard</th>
<th>Sudden release of pressure</th>
<th>Reactive</th>
<th>Immediate (acute) health hazard</th>
<th>Delayed (chronic) health hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>SureSelect RNase Block Glycerol</td>
<td>≥50 - ≤75</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
<tr>
<td>SureSelect XT2 Hybridization Buffer Sodium chloride</td>
<td>≤10</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
<tr>
<td>SureSelect XT2 Hybridization Buffer Sodium dodecyl sulphate</td>
<td>≤3</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
<tr>
<td>SureSelect XT2 Hybridization Buffer Phosphoric acid, monosodium salt, monohydrate</td>
<td>≤3</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
</tbody>
</table>

State regulations

- **Massachusetts**: The following components are listed: GLYCERINE MIST
- **New York**: None of the components are listed.
- **New Jersey**: The following components are listed: GLYCERIN; 1,2,3-PROPANETRIOL
- **Pennsylvania**: The following components are listed: 1,2,3-PROPANETRIOL
- **California Prop. 65**: No products were found.

Canada inventory : At least one component is not listed in DSL but all such components are listed in NDSL.

International regulations

- **Australia inventory (AICS)**: Not determined.
- **China inventory (IECSC)**: All components are listed or exempted.
- **Japan inventory (ENCS)**: Not determined.
- **Japan inventory (ISHL)**: Not determined.
- **Korea inventory**: Not determined.
- **Malaysia Inventory (EHS Register)**: Not determined.
- **New Zealand Inventory of Chemicals (NZIoC)**: All components are listed or exempted.
- **Philippines inventory (PICCS)**: Not determined.
- **Taiwan Chemical Substances Inventory (TCSI)**: All components are listed or exempted.
- **Turkey inventory**: Not determined.

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

Section 16. Other information

**History**

- **Date of issue**: 02/29/2016
- **Date of previous issue**: 03/07/2014.
- **Version**: 2.01

*Indicates information that has changed from previously issued version.*

**Notice to reader**

**Date of issue**: 02/29/2016
Section 16. Other information

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