Section 1. Identification

1.1 Product identifier
Product name : Alien Reference RNA FAM QRT-PCR Detection Kit, Part Number 300602
Part No. (Chemical Kit) : 300602
Part No. : Alien RNA Transcript 300600-13
Alien Probe Forward Primer 300602-51
Alien Probe Reverse Primer 300602-52
Alien FAM Probe 300602-53

Validation date : 9/24/2015

1.2 Relevant identified uses of the substance or mixture and uses advised against
Material uses : Analytical reagent.

Alien RNA Transcript 0.02 ml
Alien Probe Forward Primer 0.1 ml
Alien Probe Reverse Primer 0.1 ml
Alien FAM Probe 0.1 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 : Alien RNA Transcript
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910. 1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Alien Probe Forward Primer
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910. 1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Alien Probe Reverse Primer
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910. 1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Alien FAM Probe
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910. 1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This

Date of issue : 09/24/2015
Section 2. Hazards identification

Classification of the substance or mixture
Not classified.

2.2 GHS label elements

Signal word
- Alien RNA Transcript: No signal word.
- Alien Probe Forward Primer: No signal word.
- Alien Probe Reverse Primer: No signal word.
- Alien FAM Probe: No signal word.

Hazard statements
- Alien RNA Transcript: No known significant effects or critical hazards.
- Alien Probe Forward Primer: No known significant effects or critical hazards.
- Alien Probe Reverse Primer: No known significant effects or critical hazards.
- Alien FAM Probe: No known significant effects or critical hazards.

Precautionary statements

Prevention
- Alien RNA Transcript: Not applicable.
- Alien Probe Forward Primer: Not applicable.
- Alien Probe Reverse Primer: Not applicable.
- Alien FAM Probe: Not applicable.

Response
- Alien RNA Transcript: Not applicable.
- Alien Probe Forward Primer: Not applicable.
- Alien Probe Reverse Primer: Not applicable.
- Alien FAM Probe: Not applicable.

Storage
- Alien RNA Transcript: Not applicable.
- Alien Probe Forward Primer: Not applicable.
- Alien Probe Reverse Primer: Not applicable.
- Alien FAM Probe: Not applicable.

Disposal
- Alien RNA Transcript: Not applicable.
- Alien Probe Forward Primer: Not applicable.
- Alien Probe Reverse Primer: Not applicable.
- Alien FAM Probe: Not applicable.

Supplemental label elements
- Alien RNA Transcript: None known.
- Alien Probe Forward Primer: None known.
- Alien Probe Reverse Primer: None known.
- Alien FAM Probe: None known.

2.3 Other hazards

Hazards not otherwise classified
- Alien RNA Transcript: None known.
- Alien Probe Forward Primer: None known.
- Alien Probe Reverse Primer: None known.
- Alien FAM Probe: None known.

Section 3. Composition/information on ingredients

Substance/mixture
- Alien RNA Transcript: Mixture
- Alien Probe Forward Primer: Mixture
- Alien Probe Reverse Primer: Mixture
- Alien FAM Probe: Mixture

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

There are no 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.

Date of issue: 09/24/2015
## Section 4. First aid measures

### 4.1 Description of necessary first aid measures

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>Alien RNA Transcript</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alien Probe Forward Primer</td>
<td>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.</td>
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<tr>
<td></td>
<td>Alien Probe Reverse Primer</td>
<td>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.</td>
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<tr>
<td></td>
<td>Alien FAM Probe</td>
<td>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.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inhalation</th>
<th>Alien RNA Transcript</th>
<th>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alien Probe Forward Primer</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Reverse Primer</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td></td>
<td>Alien FAM Probe</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skin contact</th>
<th>Alien RNA Transcript</th>
<th>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alien Probe Forward Primer</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Reverse Primer</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td></td>
<td>Alien FAM Probe</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingestion</th>
<th>Alien RNA Transcript</th>
<th>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.</th>
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<tr>
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<td>Alien Probe Forward Primer</td>
<td>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.</td>
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</table>
### Section 4. First aid measures

If 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.

**Alien FAM Probe**

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.

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

**Potential acute health effects**

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>Alien RNA Transcript</th>
<th>No known significant effects or critical hazards.</th>
</tr>
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</table>

**Over-exposure signs/symptoms**

<table>
<thead>
<tr>
<th>Eye contact</th>
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<th>No specific data.</th>
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</tr>
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#### 4.3 Indication of immediate medical attention and special treatment needed, if necessary
Section 4. First aid measures

Notes to physician:

- Alien RNA Transcript: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Alien Probe Forward Primer: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Alien Probe Reverse Primer: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Alien FAM Probe: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Protection of first-aiders:

- Alien RNA Transcript: No action shall be taken involving any personal risk or without suitable training.
- Alien Probe Forward Primer: No action shall be taken involving any personal risk or without suitable training.
- Alien Probe Reverse Primer: No action shall be taken involving any personal risk or without suitable training.
- Alien FAM Probe: No action shall be taken involving any personal risk or without suitable training.

Specific treatments:

- Alien Probe Forward Primer: No specific treatment.
- Alien Probe Reverse Primer: No specific treatment.
- Alien FAM Probe: No specific treatment.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media:

- Alien RNA Transcript: Use an extinguishing agent suitable for the surrounding fire.
- Alien Probe Forward Primer: Use an extinguishing agent suitable for the surrounding fire.
- Alien Probe Reverse Primer: Use an extinguishing agent suitable for the surrounding fire.
- Alien FAM Probe: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media:

- Alien RNA Transcript: None known.
- Alien Probe Forward Primer: None known.
- Alien Probe Reverse Primer: None known.
- Alien FAM Probe: None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical:

- Alien RNA Transcript: In a fire or if heated, a pressure increase will occur and the container may burst.
- Alien Probe Forward Primer: In a fire or if heated, a pressure increase will occur and the container may burst.
- Alien Probe Reverse Primer: In a fire or if heated, a pressure increase will occur and the container may burst.
- Alien FAM Probe: In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products:

- Alien RNA Transcript: No specific data.
- Alien Probe Forward Primer: No specific data.
- Alien Probe Reverse Primer: No specific data.
- Alien FAM Probe: No specific data.
Section 5. Fire-fighting measures

5.3 Advice for firefighters

Special protective actions for fire-fighters:

- Alien RNA Transcript: 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.
- Alien Probe Forward Primer: 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.
- Alien Probe Reverse Primer: 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.
- Alien FAM Probe: 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:

- Alien RNA Transcript: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Alien Probe Forward Primer: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Alien Probe Reverse Primer: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Alien FAM Probe: 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:

- Alien RNA Transcript: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
- Alien Probe Forward Primer: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
- Alien Probe Reverse Primer: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
- Alien FAM Probe: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
Section 6. Accidental release measures

surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders: Alien RNA Transcript

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".

Alien Probe Forward Primer

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".

Alien Probe Reverse Primer

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".

Alien FAM Probe

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".

6.2 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).

Alien Probe Forward Primer

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).

Alien Probe Reverse Primer

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).

Alien FAM Probe

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: Alien RNA Transcript

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.

Alien Probe Forward Primer

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.

Alien Probe Reverse Primer

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble.
Section 6. Accidental release measures

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.

Alien FAM Probe

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

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures

- Alien RNA Transcript
  - Put on appropriate personal protective equipment (see Section 8).
- Alien Probe Forward Primer
  - Put on appropriate personal protective equipment (see Section 8).
- Alien Probe Reverse Primer
  - Put on appropriate personal protective equipment (see Section 8).
- Alien FAM Probe
  - Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene

- Alien RNA Transcript
  - 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.
- Alien Probe Forward Primer
  - 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.
- Alien Probe Reverse Primer
  - 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.
- Alien FAM Probe
  - 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

- Alien RNA Transcript
  - 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.
Section 7. Handling and storage

Alien Probe Forward Primer
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.

Alien Probe Reverse Primer
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.

Alien FAM Probe
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
- Alien RNA Transcript
- Alien Probe Forward Primer
- Alien Probe Reverse Primer
- Alien FAM Probe

Industrial sector specific solutions
- Alien RNA Transcript
- Alien Probe Forward Primer
- Alien Probe Reverse Primer
- Alien FAM Probe

Industrial applications, Professional applications.
Not applicable.
Not applicable.
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>None</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Exposure controls

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

Date of issue: 09/24/2015
Section 8. Exposure controls/personal protection

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

Individual protection measures

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

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

Skin protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

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

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

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

9.1 Information on basic physical and chemical properties

Appearance

Physical state: Alien RNA Transcript Liquid.
Alien Probe Forward Primer Liquid.
Alien Probe Reverse Primer Liquid.
Alien FAM Probe Liquid.

Color: Alien RNA Transcript Not available.
Alien Probe Forward Primer Not available.
Alien Probe Reverse Primer Not available.
Alien FAM Probe Not available.

Odor: Alien RNA Transcript Not available.
Alien Probe Forward Primer Not available.
Alien Probe Reverse Primer Not available.
Alien FAM Probe Not available.

Odor threshold: Alien RNA Transcript Not available.
Alien Probe Forward Primer Not available.
Alien Probe Reverse Primer Not available.
Alien FAM Probe Not available.

pH: Alien RNA Transcript Not available.
Alien Probe Forward Primer 7.5
Alien Probe Reverse Primer 7.5
Alien FAM Probe 7.5
### Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Alien RNA Transcript</th>
<th>Alien Probe Forward Primer</th>
<th>Alien Probe Reverse Primer</th>
<th>Alien FAM Probe</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Melting point</strong></td>
<td>0°C (32°F)</td>
<td>0°C (32°F)</td>
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<td>0°C (32°F)</td>
</tr>
<tr>
<td><strong>Boiling point</strong></td>
<td>100°C (212°F)</td>
<td>100°C (212°F)</td>
<td>100°C (212°F)</td>
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</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>Not available.</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>
<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>
<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>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Vapor pressure</strong></td>
<td>Not available.</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>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Solubility</strong></td>
<td>Easily 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>Easily soluble in the following materials: cold water and hot water.</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>Not available.</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>
<td>Not available.</td>
</tr>
</tbody>
</table>

**Date of issue:** 09/24/2015
## Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Item</th>
<th>Property Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity</td>
<td>Alien RNA Transcript</td>
<td>Not available.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Forward Primer</td>
<td>Not available.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Reverse Primer</td>
<td>Not available.</td>
</tr>
<tr>
<td></td>
<td>Alien FAM Probe</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

## Section 10. Stability and reactivity

### 10.1 Reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Item</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alien RNA Transcript</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Forward Primer</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Reverse Primer</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
<tr>
<td></td>
<td>Alien FAM Probe</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
</tbody>
</table>

### 10.2 Chemical stability

<table>
<thead>
<tr>
<th>Property</th>
<th>Item</th>
<th>Chemical stability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alien RNA Transcript</td>
<td>The product is stable.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Forward Primer</td>
<td>The product is stable.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Reverse Primer</td>
<td>The product is stable.</td>
</tr>
<tr>
<td></td>
<td>Alien FAM Probe</td>
<td>The product is stable.</td>
</tr>
</tbody>
</table>

### 10.3 Possibility of hazardous reactions

<table>
<thead>
<tr>
<th>Property</th>
<th>Item</th>
<th>Possibility of hazardous reactions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alien RNA Transcript</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Forward Primer</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Reverse Primer</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td></td>
<td>Alien FAM Probe</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
</tbody>
</table>

### 10.4 Conditions to avoid

<table>
<thead>
<tr>
<th>Property</th>
<th>Item</th>
<th>Conditions to avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alien RNA Transcript</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Forward Primer</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Reverse Primer</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Alien FAM Probe</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

### 10.5 Incompatible materials

<table>
<thead>
<tr>
<th>Property</th>
<th>Item</th>
<th>Incompatible materials</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alien RNA Transcript</td>
<td>May react or be incompatible with oxidizing materials.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Forward Primer</td>
<td>May react or be incompatible with oxidizing materials.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Reverse Primer</td>
<td>May react or be incompatible with oxidizing materials.</td>
</tr>
<tr>
<td></td>
<td>Alien FAM Probe</td>
<td>May react or be incompatible with oxidizing materials.</td>
</tr>
</tbody>
</table>

### 10.6 Hazardous decomposition products

<table>
<thead>
<tr>
<th>Property</th>
<th>Item</th>
<th>Hazardous decomposition products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alien RNA Transcript</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Forward Primer</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Reverse Primer</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
<tr>
<td></td>
<td>Alien FAM Probe</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
</tbody>
</table>
Section 11. Toxicological information

11.1 Information on toxicological effects

**Acute toxicity**
Not available.

**Irritation/Corrosion**
Not available.

**Sensitization**
Not available.

**Mutagenicity**
Not available.

**Carcinogenicity**
Not available.

**Reproductive toxicity**
Not available.

**Teratogenicity**
Not available.

**Specific target organ toxicity (single exposure)**
Not available.

**Specific target organ toxicity (repeated exposure)**
Not available.

**Aspiration hazard**
Not available.

**Information on the likely routes of exposure**

<table>
<thead>
<tr>
<th>Route</th>
<th>Alien RNA Transcript</th>
<th>Alien Probe Forward Primer</th>
<th>Alien Probe Reverse Primer</th>
<th>Alien FAM Probe</th>
</tr>
</thead>
</table>

**Potential acute health effects**

**Eye contact**

<table>
<thead>
<tr>
<th>Route</th>
<th>Alien RNA Transcript</th>
<th>Alien Probe Forward Primer</th>
<th>Alien Probe Reverse Primer</th>
<th>Alien FAM Probe</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

**Inhalation**

<table>
<thead>
<tr>
<th>Route</th>
<th>Alien RNA Transcript</th>
<th>Alien Probe Forward Primer</th>
<th>Alien Probe Reverse Primer</th>
<th>Alien FAM Probe</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

**Skin contact**

<table>
<thead>
<tr>
<th>Route</th>
<th>Alien RNA Transcript</th>
<th>Alien Probe Forward Primer</th>
<th>Alien Probe Reverse Primer</th>
<th>Alien FAM Probe</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

**Ingestion**

<table>
<thead>
<tr>
<th>Route</th>
<th>Alien RNA Transcript</th>
<th>Alien Probe Forward Primer</th>
<th>Alien Probe Reverse Primer</th>
<th>Alien FAM Probe</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

**Symptoms related to the physical, chemical and toxicological characteristics**
### Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>Alien RNA Transcript</th>
<th>No specific data.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alien Probe Forward Primer</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Reverse Primer</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Alien FAM Probe</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Alien RNA Transcript</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Forward Primer</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Reverse Primer</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Alien FAM Probe</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Alien RNA Transcript</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Forward Primer</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Reverse Primer</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Alien FAM Probe</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Alien RNA Transcript</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Forward Primer</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Alien Probe Reverse Primer</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Alien FAM Probe</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

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

**Short term exposure**

**Potential immediate effects**  : Not available.

**Potential delayed effects** : Not available.

**Long term exposure**

**Potential immediate effects**  : Not available.

**Potential delayed effects** : Not available.

**Potential chronic health effects**

**General**  : Alien RNA Transcript  | No known significant effects or critical hazards.

|                      | Alien Probe Forward Primer | No known significant effects or critical hazards.  |
|                      | Alien Probe Reverse Primer | No known significant effects or critical hazards.  |
|                      | Alien FAM Probe            | No known significant effects or critical hazards.  |

**Carcinogenicity**  : Alien RNA Transcript  | No known significant effects or critical hazards.

|                      | Alien Probe Forward Primer | No known significant effects or critical hazards.  |
|                      | Alien Probe Reverse Primer | No known significant effects or critical hazards.  |
|                      | Alien FAM Probe            | No known significant effects or critical hazards.  |

**Mutagenicity**  : Alien RNA Transcript  | No known significant effects or critical hazards.

|                      | Alien Probe Forward Primer | No known significant effects or critical hazards.  |
|                      | Alien Probe Reverse Primer | No known significant effects or critical hazards.  |
|                      | Alien FAM Probe            | No known significant effects or critical hazards.  |

**Teratogenicity**  : Alien RNA Transcript  | No known significant effects or critical hazards.

|                      | Alien Probe Forward Primer | No known significant effects or critical hazards.  |
|                      | Alien Probe Reverse Primer | No known significant effects or critical hazards.  |
|                      | Alien FAM Probe            | No known significant effects or critical hazards.  |

**Developmental effects**  : Alien RNA Transcript  | No known significant effects or critical hazards.

|                      | Alien Probe Forward Primer | No known significant effects or critical hazards.  |
|                      | Alien Probe Reverse Primer | No known significant effects or critical hazards.  |
|                      | Alien FAM Probe            | No known significant effects or critical hazards.  |

**Fertility effects**  : Alien RNA Transcript  | No known significant effects or critical hazards.

|                      | Alien Probe Forward Primer | No known significant effects or critical hazards.  |
|                      | Alien Probe Reverse Primer | No known significant effects or critical hazards.  |
|                      | Alien FAM Probe            | No known significant effects or critical hazards.  |

**Numerical measures of toxicity**

**Acute toxicity estimates**
Section 11. Toxicological information
Not available.

Section 12. Ecological information

12.1 Toxicity
Not available.

12.2 Persistence and degradability
Not available.

12.3 Bioaccumulative potential
Not available.

12.4 Mobility in soil
Soil/water partition coefficient ($K_{OC}$) : Not available.

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

Section 13. Disposal considerations

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

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

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

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

Date of issue : 09/24/2015
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: Edetic acid

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed
Clean Air Act Section 602 Class I Substances : Not listed
Clean Air Act Section 602 Class II Substances : Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304
Composition/information on ingredients
No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312
Classification : Not applicable.
Composition/information on ingredients
No products were found.

State regulations
Massachusetts : None of the components are listed.
New York : None of the components are listed.
New Jersey : None of the components are listed.
Pennsylvania : None of the components are listed.

California Prop. 65
No products were found.

Canada inventory

International regulations

International lists
Australia inventory (AICS): All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Japan inventory: All components are listed or exempted.
Korea inventory: All components are listed or exempted.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.
Taiwan inventory (CSNN): All components are listed or exempted.

Date of issue : 09/24/2015
Section 15. Regulatory information

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: 9/24/2015
Date of previous issue: No previous validation
Version: 1

Notice to reader

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