# Section 1. Identification

## 1.1 Product identifier

**Product name**: miRNA QPCR Master Mix, Part Number 600583

**Part no. (chemical kit)**: 600583

**Part no.**
- miRNA QPCR Master Mix: 600583-51
- Reference Dye: 600530-53

**Validation date**: 10/31/2018

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

**Material uses**: Analytical reagent.
- miRNA QPCR Master Mix: 2 x 2.5 ml
- Reference Dye: 0.1 ml (100 µl 1 mM)

## 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**: miRNA QPCR Master Mix

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

**Reference Dye**: 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.

### Classification of the substance or mixture

**Not classified.**

**Ingredients of unknown toxicity**
- miRNA QPCR Master Mix
- Reference Dye

**Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity**: 1 - 10%
**Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity**: 1 - 10%
**Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity**: 1 - 10%
**Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment**: 2.4%

**Date of issue**: 10/31/2018
Section 2. Hazards identification

2.2 GHS label elements

Signal word:
- miRNA QPCR Master Mix: No signal word.
- Reference Dye: No signal word.

Hazard statements:
- miRNA QPCR Master Mix: No known significant effects or critical hazards.
- Reference Dye: No known significant effects or critical hazards.

Precautionary statements

Prevention:
- miRNA QPCR Master Mix: Not applicable.
- Reference Dye: Not applicable.

Response:
- miRNA QPCR Master Mix: Not applicable.
- Reference Dye: Not applicable.

Storage:
- miRNA QPCR Master Mix: Not applicable.
- Reference Dye: Not applicable.

Disposal:
- miRNA QPCR Master Mix: Not applicable.
- Reference Dye: Not applicable.

Supplemental label elements:
- miRNA QPCR Master Mix: None known.
- Reference Dye: None known.

2.3 Other hazards

Hazards not otherwise classified:
- miRNA QPCR Master Mix: None known.
- Reference Dye: None known.

Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>miRNA QPCR Master Mix</th>
<th>Reference Dye</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerol</td>
<td>≤3%</td>
<td>56-81-5</td>
</tr>
<tr>
<td>Reference Dye</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>≤5%</td>
<td>7447-40-7</td>
</tr>
<tr>
<td>2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>≤3%</td>
<td>1185-53-1</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:
- miRNA QPCR Master Mix
- Reference Dye

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.

Date of issue: 10/31/2018
Section 4. First aid measures

| Inhalation                      | miRNA QPCR Master Mix                                                                 | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
|                                | Reference Dye                                                                          | 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                   | miRNA QPCR Master Mix                                                                 | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
|                                | Reference Dye                                                                          | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |

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

| Eye contact                    | miRNA QPCR Master Mix                                                                 | No known significant effects or critical hazards. |
|                                | Reference Dye                                                                          | No known significant effects or critical hazards. |

| Inhalation                     | miRNA QPCR Master Mix                                                                 | No known significant effects or critical hazards. |
|                                | Reference Dye                                                                          | No known significant effects or critical hazards. |

| Skin contact                   | miRNA QPCR Master Mix                                                                 | No known significant effects or critical hazards. |
|                                | Reference Dye                                                                          | No known significant effects or critical hazards. |

| Ingestion                      | miRNA QPCR Master Mix                                                                 | No known significant effects or critical hazards. |
|                                | Reference Dye                                                                          | No known significant effects or critical hazards. |

Over-exposure signs/symptoms

| Eye contact                    | miRNA QPCR Master Mix                                                                 | No specific data. |
|                                | Reference Dye                                                                          | No specific data. |

| Inhalation                     | miRNA QPCR Master Mix                                                                 | No specific data. |
|                                | Reference Dye                                                                          | No specific data. |

| Skin contact                   | miRNA QPCR Master Mix                                                                 | No specific data. |
|                                | Reference Dye                                                                          | No specific data. |

| Ingestion                      | miRNA QPCR Master Mix                                                                 | No specific data. |
|                                | Reference Dye                                                                          | No specific data. |

4.3 Indication of immediate medical attention and special treatment needed, if necessary
Section 4. First aid measures

Notes to physician: miRNA QPCR Master Mix
Reference Dye
Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: miRNA QPCR Master Mix
Reference Dye
No specific treatment.

Protection of first-aiders: miRNA QPCR Master Mix
Reference Dye
No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media: miRNA QPCR Master Mix
Reference Dye
Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: miRNA QPCR Master Mix
Reference Dye
None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical: miRNA QPCR Master Mix
Reference Dye
In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products: miRNA QPCR Master Mix
Reference Dye
Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
halogenated compounds
metal oxide/oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters: miRNA QPCR Master Mix
Reference Dye
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

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Section 5. Fire-fighting measures

Special protective equipment for fire-fighters

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

Reference Dye

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

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.

Reference Dye

For emergency responders

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".

Reference Dye

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).

Reference Dye

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

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.

Reference Dye

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**
- *miRNA QPCR Master Mix*
- *Reference Dye*

**Advice on general occupational hygiene**
- *miRNA QPCR Master Mix*
- *Reference Dye*

7.2 Conditions for safe storage, including any incompatibilities

**miRNA QPCR Master Mix**
- Put on appropriate personal protective equipment (see Section 8).

**Reference Dye**
- Put on appropriate personal protective equipment (see Section 8).

- 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.

7.3 Specific end use(s)

**Recommendations**
- *miRNA QPCR Master Mix*
- *Reference Dye*

**Industrial sector specific solutions**
- *miRNA QPCR Master Mix*
- *Reference Dye*

- Industrial applications, Professional applications.
- Not applicable.
- Not applicable.

Date of issue: 10/31/2018
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></td>
<td>TWA: 5 mg/m³ 8 hours. Form: Respirable fraction</td>
</tr>
<tr>
<td></td>
<td>TWA: 10 mg/m³ 8 hours. Form: Total dust</td>
</tr>
<tr>
<td>Glycerol</td>
<td>OSHA PEL (United States, 6/2016).</td>
</tr>
<tr>
<td></td>
<td>TWA: 5 mg/m³ 8 hours. Form: Respirable fraction</td>
</tr>
<tr>
<td></td>
<td>TWA: 15 mg/m³ 8 hours. Form: Total dust</td>
</tr>
<tr>
<td>Reference Dye</td>
<td>None.</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>None.</td>
</tr>
<tr>
<td>2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</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**

**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**

: 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**
- **Color**: miRNA QPCR Master Mix - Not available. Reference Dye - Not available.
- **Odor**: miRNA QPCR Master Mix - Not available. Reference Dye - Not available.
- **Odor threshold**: miRNA QPCR Master Mix - Not available. Reference Dye - Not available.
- **Melting point**: miRNA QPCR Master Mix - 0°C (32°F). Reference Dye - Not available.
- **Boiling point**: miRNA QPCR Master Mix - 100°C (212°F). Reference Dye - Not available.
- **Flash point**: miRNA QPCR Master Mix - Not available. Reference Dye - Not available.
- **Evaporation rate**: miRNA QPCR Master Mix - Not available. Reference Dye - Not available.
- **Flammability (solid, gas)**: miRNA QPCR Master Mix - Not applicable. Reference Dye - Not applicable.
- **Lower and upper explosive (flammable) limits**: miRNA QPCR Master Mix - Not available. Reference Dye - Not available.
- **Vapor pressure**: miRNA QPCR Master Mix - Not available. Reference Dye - Not available.
- **Vapor density**: miRNA QPCR Master Mix - Not available. Reference Dye - Not available.
- **Relative density**: miRNA QPCR Master Mix - Not available. Reference Dye - Not available.
- **Solubility**: miRNA QPCR Master Mix - Easily soluble in the following materials: cold water and hot water. Reference Dye - Easily soluble in the following materials: cold water and hot water.
- **Partition coefficient: n-octanol/water**: miRNA QPCR Master Mix - Not available. Reference Dye - Not available.
- **Auto-ignition temperature**: miRNA QPCR Master Mix - Not available. Reference Dye - Not available.
- **Decomposition temperature**: miRNA QPCR Master Mix - Not available. Reference Dye - Not available.
- **Viscosity**: miRNA QPCR Master Mix - Not available. Reference Dye - Not available.

Section 10. Stability and reactivity

10.1 Reactivity
- miRNA QPCR Master Mix - No specific test data related to reactivity available for this product or its ingredients.
- Reference Dye - No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability
- miRNA QPCR Master Mix - The product is stable.
- Reference Dye - The product is stable.

Date of issue: 10/31/2018
Section 10. Stability and reactivity

10.3 Possibility of hazardous reactions
- **miRNA QPCR Master Mix**: Under normal conditions of storage and use, hazardous reactions will not occur.
- **Reference Dye**: Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid
- **miRNA QPCR Master Mix**: No specific data.
- **Reference Dye**: No specific data.

10.5 Incompatible materials
- **miRNA QPCR Master Mix**: May react or be incompatible with oxidizing materials.
- **Reference Dye**: May react or be incompatible with oxidizing materials.

10.6 Hazardous decomposition products
- **miRNA QPCR Master Mix**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- **Reference Dye**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

11.1 Information on toxicological effects

**Acute toxicity**

<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>miRNA QPCR Master Mix</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>12600 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Reference Dye</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>2600 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

**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>miRNA QPCR Master Mix</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>Reference Dye</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sensitization**
Not available.

**Mutagenicity**

**Conclusion/Summary**: Not available.

**Carcinogenicity**

**Conclusion/Summary**: Not available.

**Reproductive toxicity**

**Conclusion/Summary**: Not available.

**Teratogenicity**

**Conclusion/Summary**: Not available.

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Section 11. Toxicological information

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>Reference Dye</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reference Dye</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td></td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)
Not available.

Aspiration hazard
Not available.

Information on the likely routes of exposure:
- Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact:
- No known significant effects or critical hazards.
- Routes of entry: Oral, Dermal, Inhalation.

Inhalation:
- No known significant effects or critical hazards.

Skin contact:
- No known significant effects or critical hazards.

Ingestion:
- No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact:
- No specific data.
- Routes of entry: Oral, Dermal, Inhalation.

Inhalation:
- No specific data.

Skin contact:
- No specific data.

Ingestion:
- No specific data.

Potential chronic health effects

General:
- No known significant effects or critical hazards.

Carcinogenicity:
- No known significant effects or critical hazards.
Section 11. Toxicological information

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

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

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

**Fertility effects**: 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>Reference Dye</td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>70270.3 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>miRNA QPCR Master Mix</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>Reference Dye</td>
<td>Acute EC50 1337000 µg/l Fresh water</td>
<td>Algae - Navicula seminulum</td>
<td>96 hours</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>Acute EC50 9.24 g/L Fresh water</td>
<td>Algae - Desmodesmus subspicatus</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 141460 µg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 12.92 mg/l Fresh water</td>
<td>Crustaceans - Pseudosida ramosa - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 880 mg/l Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

**12.2 Persistence and degradability**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Result</th>
<th>Dose</th>
<th>Inoculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>miRNA QPCR Master Mix</td>
<td>301D Ready Biodegradability - Closed Bottle Test</td>
<td>93 % - 30 days</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**12.3 Bioaccumulative potential**

**Reference Dye**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium chloride</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>
Section 12. Ecological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>miRNA QPCR Master Mix</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>-1.76</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Reference Dye</td>
<td>-0.46</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

Soil/water partition coefficient (Koc): 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.

Section 14. Transport information

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

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

Transport in bulk according to Annex II of MARPOL and the IBC Code: Not available.
Section 15. Regulatory information

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

U.S. Federal regulations

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

Clean Water Act (CWA) 311: Edetic acid

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

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.

New York State regulations

Clean Air Act (CWA) 311: Edetic acid

Clean Water Act (CWA) 311: Edetic acid

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: miRNA QPCR Master Mix, Reference Dye

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>miRNA QPCR Master Mix</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>≤3</td>
<td>EYE IRRITATION - Category 2A</td>
</tr>
<tr>
<td>Reference Dye</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>≤5</td>
<td>EYE IRRITATION - Category 2A</td>
</tr>
<tr>
<td>2-Amino-2-(hydroxymethyl)</td>
<td>≤3</td>
<td>EYE IRRITATION - Category 2A</td>
</tr>
<tr>
<td>1,3-diol hydrochloride</td>
<td></td>
<td>EYE IRRITATION - Category 2A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Respiratory tract irritation) - Category 3</td>
</tr>
</tbody>
</table>

State regulations

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

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals
Not listed.

Montreal Protocol (Annexes A, B, C, E)
Not listed.

Stockholm Convention on Persistent Organic Pollutants
Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

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Section 15. Regulatory information

UNECE Aarhus Protocol on POPs and Heavy Metals
Not listed.

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

Section 16. Other information

History
Date of issue : 10/31/2018
Date of previous issue : 01/07/2016
Version : 2

Procedure used to derive the classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not classified.</td>
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</tr>
</tbody>
</table>

Indicates information that has changed from previously issued version.

Notice to reader

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