

SAFETY DATA SHEET



QPCR NGS Library Quant Kit with Extra Standards, Part Number 930902

Section 1. Identification

1.1 Product identifier

Product name : QPCR NGS Library Quant Kit with Extra Standards, Part Number 930902
Part No. (Chemical Kit) : 930902
Part No. : 2X Brilliant III SYBR® Green QPCR Master Mix 600882-51
 Reference Dye 600530-53
 50× Illumina GA Primer Mix 5190-2375
 100 pM Illumina GA Standard 5190-2376
 200× Dilution Buffer 5190-2377
 10× GC-Additive 5190-2378

Validation date : 11/25/2015

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

Material uses : Analytical reagent.
 2X Brilliant III SYBR® Green QPCR Master Mix 2.0 ml
 Reference Dye 0.1 ml
 50× Illumina GA Primer Mix 0.2 ml
 100 pM Illumina GA Standard 0.02 ml
 200× Dilution Buffer 0.5 ml
 10× GC-Additive 0.5 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

| | |
|--|---|
| <p>OSHA/HCS status : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye</p> | <p>This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.</p> |
| <p>50× Illumina GA Primer Mix</p> | <p>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.</p> |
| <p>100 pM Illumina GA Standard</p> | <p>While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to</p> |

Section 2. Hazards identification

the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

200× Dilution Buffer

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.

10× GC-Additive

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

Classification of the substance or mixture

2X Brilliant III SYBR® Green QPCR Master Mix

H320 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B

10× GC-Additive

H302 ACUTE TOXICITY (oral) - Category 4
 H320 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B
 H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (kidneys) - Category 2

Ingredients of unknown toxicity :

| | |
|------------------------------|---|
| 2X Brilliant III SYBR® Green | Not applicable. |
| QPCR Master Mix | |
| Reference Dye | Not applicable. |
| 50× Illumina GA Primer Mix | Not applicable. |
| 100 pM Illumina GA Standard | Not applicable. |
| 200× Dilution Buffer | Percentage of the mixture consisting of ingredient (s) of unknown toxicity: 10% |
| 10× GC-Additive | Not applicable. |

2.2 GHS label elements

Hazard pictograms :



Signal word :

| | |
|------------------------------|-----------------|
| 2X Brilliant III SYBR® Green | Warning |
| QPCR Master Mix | |
| Reference Dye | No signal word. |
| 50× Illumina GA Primer Mix | No signal word. |
| 100 pM Illumina GA Standard | No signal word. |
| 200× Dilution Buffer | No signal word. |
| 10× GC-Additive | Warning |

Hazard statements :

| | |
|------------------------------|--|
| 2X Brilliant III SYBR® Green | H320 - Causes eye irritation. |
| QPCR Master Mix | |
| Reference Dye | No known significant effects or critical hazards. |
| 50× Illumina GA Primer Mix | No known significant effects or critical hazards. |
| 100 pM Illumina GA Standard | No known significant effects or critical hazards. |
| 200× Dilution Buffer | No known significant effects or critical hazards. |
| 10× GC-Additive | H302 - Harmful if swallowed. H320 - Causes eye irritation. H373 - May cause damage to organs through prolonged or repeated exposure. (kidneys) |

Precautionary statements

Section 2. Hazards identification

| | | |
|------------------------------------|--|---|
| Prevention | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | P264 - Wash hands thoroughly after handling. Not applicable. Not applicable. Not applicable. Not applicable. P260 - Do not breathe vapor. P270 - Do not eat, drink or smoke when using this product. P264 - Wash hands thoroughly after handling. |
| Response | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | 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. Not applicable. Not applicable. Not applicable. Not applicable. P314 - Get medical attention if you feel unwell. P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. 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. |
| Storage | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. |
| Disposal | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| Supplemental label elements | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | None known. None known. None known. None known. None known. None known. |

2.3 Other hazards

Section 2. Hazards identification

| | | |
|---|--|--|
| Hazards not otherwise classified | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | None known. None known. None known. None known. None known. None known. |
|---|--|--|

Section 3. Composition/information on ingredients

| | | |
|--------------------------|---|--|
| Substance/mixture | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | Mixture Mixture Mixture Mixture Mixture Mixture |
|--------------------------|---|--|

| Ingredient name | % | CAS number |
|---|-----------|------------|
| 2X Brilliant III SYBR® Green QPCR Master Mix | | |
| Glycerol | ≥10 - <25 | 56-81-5 |
| Dimethyl sulfoxide | ≥5 - <10 | 67-68-5 |
| Potassium chloride | ≥1 - <3 | 7447-40-7 |
| 10× GC-Additive | | |
| Ethenediol | ≥50 - <75 | 107-21-1 |

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 | : 2X Brilliant III SYBR® Green QPCR Master Mix | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention. |
| | 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. |
| | 50× Illumina GA Primer 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. |
| | 100 pM Illumina GA Standard | 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. |
| | 200× Dilution Buffer | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. |

Section 4. First aid measures

| | | |
|---------------------|--|--|
| | 10× GC-Additive | 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 following exposure or if feeling unwell. |
| Inhalation | : 2X Brilliant III SYBR® Green QPCR Master Mix | Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| | Reference Dye | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
| | 50× Illumina GA Primer Mix | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
| | 100 pM Illumina GA Standard | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
| | 200× Dilution Buffer | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
| | 10× GC-Additive | 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 following exposure or if feeling unwell. 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. |
| Skin contact | : 2X Brilliant III SYBR® Green QPCR Master Mix | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| | Reference Dye | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| | 50× Illumina GA Primer Mix | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| | 100 pM Illumina GA Standard | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| | 200× Dilution Buffer | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| | | |

Section 4. First aid measures

| | | |
|------------------|--|---|
| | 10× GC-Additive | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Ingestion | : 2X Brilliant III SYBR® Green QPCR Master Mix | 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. |
| | 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. |
| | 50× Illumina GA Primer 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. |
| | 100 pM Illumina GA Standard | 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. |
| | 200× Dilution Buffer | Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| | 10× GC-Additive | 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 |

Section 4. First aid measures

does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

| | | |
|---------------------|--|--|
| Eye contact | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | Causes eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes eye irritation. |
| Inhalation | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Skin contact | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Ingestion | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Harmful if swallowed. |

Over-exposure signs/symptoms

| | | |
|--------------------|--|--|
| Eye contact | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | Adverse symptoms may include the following: irritation watering redness No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: irritation watering redness |
|--------------------|--|--|

Section 4. First aid measures

| | | |
|---------------------|--|--|
| Inhalation | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. |
| Skin contact | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. |
| Ingestion | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. |

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

| | | |
|-----------------------------------|--|--|
| Notes to physician | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. |
| Protection of first-aiders | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard | 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. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk |

Section 4. First aid measures

200× Dilution Buffer

or without suitable training.

No action shall be taken involving any personal risk or without suitable training.

10× GC-Additive

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

: 2X Brilliant III SYBR® Green
QPCR Master Mix
Reference Dye

Use an extinguishing agent suitable for the surrounding fire.

Use an extinguishing agent suitable for the surrounding fire.

50× Illumina GA Primer Mix

Use an extinguishing agent suitable for the surrounding fire.

100 pM Illumina GA Standard

Use an extinguishing agent suitable for the surrounding fire.

200× Dilution Buffer

Use an extinguishing agent suitable for the surrounding fire.

10× GC-Additive

Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media

: 2X Brilliant III SYBR® Green
QPCR Master Mix
Reference Dye
50× Illumina GA Primer Mix
100 pM Illumina GA Standard
200× Dilution Buffer
10× GC-Additive

None known.

None known.

None known.

None known.

None known.

None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical

: 2X Brilliant III SYBR® Green
QPCR Master Mix
Reference Dye

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

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

50× Illumina GA Primer Mix

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

100 pM Illumina GA Standard

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

200× Dilution Buffer

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

10× GC-Additive

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

Hazardous thermal decomposition products

: 2X Brilliant III SYBR® Green
QPCR Master Mix

Decomposition products may include the following materials:

carbon dioxide

carbon monoxide

sulfur oxides

halogenated compounds

metal oxide/oxides

Reference Dye

No specific data.

50× Illumina GA Primer Mix

No specific data.

100 pM Illumina GA Standard

No specific data.

200× Dilution Buffer

Decomposition products may include the following

Section 5. Fire-fighting measures

materials:
 carbon dioxide
 carbon monoxide
 Decomposition products may include the following materials:
 carbon dioxide
 carbon monoxide

5.3 Advice for firefighters

Special protective actions for fire-fighters

| | |
|--|---|
| : 2X Brilliant III SYBR® Green QPCR Master 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. |
| 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. |
| 50× Illumina GA Primer 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. |
| 100 pM Illumina GA Standard | 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. |
| 200× Dilution 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. |
| 10× GC-Additive | 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

| | |
|--|---|
| : 2X Brilliant III SYBR® Green QPCR Master Mix | 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. |
| 50× Illumina GA Primer Mix | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |
| 100 pM Illumina GA Standard | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |
| 200× Dilution Buffer | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |
| 10× GC-Additive | 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 | : 2X Brilliant III SYBR® Green QPCR Master 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. |
| | Reference Dye | 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. |
| | 50× Illumina GA Primer Mix | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. |
| | 100 pM Illumina GA Standard | 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. |
| | 200× Dilution 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. Put on appropriate personal protective equipment. |
| | 10× GC-Additive | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| For emergency responders | : 2X Brilliant III SYBR® Green QPCR Master Mix | 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". |
| | Reference Dye | 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". |
| | 50× Illumina GA Primer Mix | 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". |
| | 100 pM Illumina GA Standard | 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 |

Section 6. Accidental release measures

200× Dilution Buffer

the information in "For non-emergency personnel". 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".

10× GC-Additive

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

: 2X Brilliant III SYBR® Green QPCR Master 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).

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).

50× Illumina GA Primer 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).

100 pM Illumina GA Standard

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).

200× Dilution 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).

10× GC-Additive

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 : 2X Brilliant III SYBR® Green QPCR Master 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.

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.

50× Illumina GA Primer 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.

Section 6. Accidental release measures

| | |
|-----------------------------|---|
| 100 pM Illumina GA Standard | disposal container. Dispose of via a licensed waste disposal contractor. 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. |
| 200× Dilution 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. |
| 10× GC-Additive | 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

| | |
|---|---|
| : 2X Brilliant III SYBR® Green QPCR Master Mix | Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| Reference Dye | Put on appropriate personal protective equipment (see Section 8). |
| 50× Illumina GA Primer Mix | Put on appropriate personal protective equipment (see Section 8). |
| 100 pM Illumina GA Standard | Put on appropriate personal protective equipment (see Section 8). |
| 200× Dilution Buffer | Put on appropriate personal protective equipment (see Section 8). |
| 10× GC-Additive | Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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. |

Advice on general occupational hygiene

| | |
|---|---|
| : 2X Brilliant III SYBR® Green QPCR Master 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. |
| Reference Dye | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove |

Section 7. Handling and storage

| | |
|-----------------------------|---|
| 50× Illumina GA Primer Mix | contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |
| 100 pM Illumina GA Standard | 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. |
| 200× Dilution 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. |
| 10× GC-Additive | 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

| | |
|--|--|
| : 2X Brilliant III SYBR® Green QPCR Master 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. |
| Reference Dye | 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. |
| 50× Illumina GA Primer 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 |

Section 7. Handling and storage

| | |
|-----------------------------|---|
| 100 pM Illumina GA Standard | to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. |
| 200× Dilution Buffer | Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. |
| 10× GC-Additive | 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

| | |
|--|--|
| : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. |
|--|--|

Industrial sector specific solutions

| | |
|--|--|
| : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. |
|--|--|

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|---|--|
| <p>2X Brilliant III SYBR® Green QPCR Master Mix Glycerol</p> <p>Dimethyl sulfoxide</p> <p>Potassium chloride 10× GC-Additive Ethanediol</p> | <p>OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 10 mg/m³ 8 hours. Form: Total dust</p> <p>OSHA PEL (United States, 2/2013). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust</p> <p>AIHA WEEL (United States, 10/2011). TWA: 250 ppm 8 hours. None.</p> <p>OSHA PEL 1989 (United States, 3/1989). CEIL: 50 ppm CEIL: 125 mg/m³</p> <p>ACGIH TLV (United States, 3/2015). C: 100 mg/m³ Form: Aerosol</p> |

8.2 Exposure controls

Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls

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

Individual protection measures

Hygiene measures

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

Eye/face protection

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

Skin protection

Hand protection

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

Body protection

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

Section 8. Exposure controls/personal protection

- 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 | : 2X Brilliant III SYBR® Green QPCR Master Mix | Liquid. |
| | Reference Dye | Liquid. |
| | 50× Illumina GA Primer Mix | Liquid. |
| | 100 pM Illumina GA Standard | Liquid. |
| | 200× Dilution Buffer | Liquid. |
| | 10× GC-Additive | Liquid. |
| Color | : 2X Brilliant III SYBR® Green QPCR Master Mix | Not available. |
| | Reference Dye | Not available. |
| | 50× Illumina GA Primer Mix | Not available. |
| | 100 pM Illumina GA Standard | Not available. |
| | 200× Dilution Buffer | Not available. |
| | 10× GC-Additive | Not available. |
| Odor | : 2X Brilliant III SYBR® Green QPCR Master Mix | Not available. |
| | Reference Dye | Not available. |
| | 50× Illumina GA Primer Mix | Not available. |
| | 100 pM Illumina GA Standard | Not available. |
| | 200× Dilution Buffer | Not available. |
| | 10× GC-Additive | Not available. |
| Odor threshold | : 2X Brilliant III SYBR® Green QPCR Master Mix | Not available. |
| | Reference Dye | Not available. |
| | 50× Illumina GA Primer Mix | Not available. |
| | 100 pM Illumina GA Standard | Not available. |
| | 200× Dilution Buffer | Not available. |
| | 10× GC-Additive | Not available. |
| pH | : 2X Brilliant III SYBR® Green QPCR Master Mix | 7.8 |
| | Reference Dye | 8 |
| | 50× Illumina GA Primer Mix | Not available. |
| | 100 pM Illumina GA Standard | Not available. |
| | 200× Dilution Buffer | Not available. |
| | 10× GC-Additive | Not available. |
| Melting point | : 2X Brilliant III SYBR® Green QPCR Master Mix | Not available. |
| | Reference Dye | 0°C (32°F) |
| | 50× Illumina GA Primer Mix | 0°C (32°F) |
| | 100 pM Illumina GA Standard | 0°C (32°F) |
| | 200× Dilution Buffer | Not available. |
| | 10× GC-Additive | Not available. |

Section 9. Physical and chemical properties

| | | |
|---|--------------------------------|-----------------|
| Boiling point | : 2X Brilliant III SYBR® Green | Not available. |
| | QPCR Master Mix | |
| | Reference Dye | 100°C (212°F) |
| | 50× Illumina GA Primer Mix | 100°C (212°F) |
| | 100 pM Illumina GA Standard | 100°C (212°F) |
| | 200× Dilution Buffer | Not available. |
| Flash point | : 2X Brilliant III SYBR® Green | Not available. |
| | QPCR Master Mix | |
| | Reference Dye | Not available. |
| | 50× Illumina GA Primer Mix | Not available. |
| | 100 pM Illumina GA Standard | Not available. |
| | 200× Dilution Buffer | Not available. |
| Evaporation rate | : 2X Brilliant III SYBR® Green | Not available. |
| | QPCR Master Mix | |
| | Reference Dye | Not available. |
| | 50× Illumina GA Primer Mix | Not available. |
| | 100 pM Illumina GA Standard | Not available. |
| | 200× Dilution Buffer | Not available. |
| Flammability (solid, gas) | : 2X Brilliant III SYBR® Green | Not applicable. |
| | QPCR Master Mix | |
| | Reference Dye | Not applicable. |
| | 50× Illumina GA Primer Mix | Not applicable. |
| | 100 pM Illumina GA Standard | Not applicable. |
| | 200× Dilution Buffer | Not applicable. |
| Lower and upper explosive (flammable) limits | : 2X Brilliant III SYBR® Green | Not available. |
| | QPCR Master Mix | |
| | Reference Dye | Not available. |
| | 50× Illumina GA Primer Mix | Not available. |
| | 100 pM Illumina GA Standard | Not available. |
| | 200× Dilution Buffer | Not available. |
| Vapor pressure | : 2X Brilliant III SYBR® Green | Not available. |
| | QPCR Master Mix | |
| | Reference Dye | Not available. |
| | 50× Illumina GA Primer Mix | Not available. |
| | 100 pM Illumina GA Standard | Not available. |
| | 200× Dilution Buffer | Not available. |
| Vapor density | : 2X Brilliant III SYBR® Green | Not available. |
| | QPCR Master Mix | |
| | Reference Dye | Not available. |
| | 50× Illumina GA Primer Mix | Not available. |
| | 100 pM Illumina GA Standard | Not available. |
| | 200× Dilution Buffer | Not available. |
| Relative density | : 2X Brilliant III SYBR® Green | Not available. |
| | QPCR Master Mix | |
| | Reference Dye | Not available. |
| | 50× Illumina GA Primer Mix | Not available. |
| | 100 pM Illumina GA Standard | Not available. |
| | 200× Dilution Buffer | Not available. |

Section 9. Physical and chemical properties

| | | |
|---|--|--|
| Solubility | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | Soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Soluble in the following materials: cold water and hot water. |
| Partition coefficient: n-octanol/water | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | Not available. Not available. Not available. Not available. Not available. Not available. |
| Auto-ignition temperature | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | Not available. Not available. Not available. Not available. Not available. Not available. |
| Decomposition temperature | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | Not available. Not available. Not available. Not available. Not available. Not available. |
| Viscosity | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | Not available. Not available. Not available. Not available. Not available. Not available. |

Section 10. Stability and reactivity

| | | |
|------------------------|--|--|
| 10.1 Reactivity | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. |
|------------------------|--|--|

Section 10. Stability and reactivity

| | | |
|--|--|---|
| 10.2 Chemical stability | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. |
| 10.3 Possibility of hazardous reactions | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. |
| 10.4 Conditions to avoid | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No specific data. No specific data. No specific data. No specific data. No specific data. |
| 10.5 Incompatible materials | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. |
| 10.6 Hazardous decomposition products | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer | Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

Section 10. Stability and reactivity

10× GC-Additive

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|-------------|---------|-------------|----------|
| 2X Brilliant III SYBR® Green QPCR Master Mix | Glycerol | | | |
| | LD50 Oral | Rat | 12600 mg/kg | - |
| | LD50 Dermal | Rat | 40000 mg/kg | - |
| | LD50 Oral | Rat | 14500 mg/kg | - |
| Potassium chloride | LD50 Oral | Rat | 2600 mg/kg | - |
| | LD50 Oral | Rat | 2600 mg/kg | - |
| 10× GC-Additive | | | | |
| Ethanediol | LD50 Oral | Rat | 4700 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|--------------------------|---------|-------|-------------------------|-------------|
| 2X Brilliant III SYBR® Green QPCR Master Mix | Glycerol | | | | |
| | Eyes - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| Dimethyl sulfoxide | Skin - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Eyes - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Eyes - Mild irritant | Rabbit | - | 100 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| Potassium chloride | Skin - Mild irritant | Rabbit | - | 100 milligrams | - |
| | Eyes - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Eyes - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| 10× GC-Additive | Ethanediol | | | | |
| | Eyes - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Eyes - Mild irritant | Rabbit | - | 1 hours 100 milligrams | - |
| | Eyes - Moderate irritant | Rabbit | - | 6 hours 1440 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 555 milligrams | - |

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Section 11. Toxicological information

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|--------------------------------------|------------|-------------------|---------------|
| 10× GC-Additive Ethanediol | Category 2 | Not determined | kidneys |

Aspiration hazard

Not available.

| | | |
|---|--|--|
| Information on the likely routes of exposure | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | Not available. Not available. Not available. Not available. Not available. Not available. |
|---|--|--|

Potential acute health effects

| | | |
|---------------------|--|---|
| Eye contact | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | Causes eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes eye irritation. |
| Inhalation | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Skin contact | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Ingestion | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Harmful if swallowed. |

Symptoms related to the physical, chemical and toxicological characteristics

Section 11. Toxicological information

| | | |
|---------------------|--|--|
| Eye contact | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | Adverse symptoms may include the following: irritation watering redness No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: irritation watering redness |
| Inhalation | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No specific data. No specific data. No specific data. No specific data. No specific data. |
| Skin contact | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No specific data. No specific data. No specific data. No specific data. No specific data. |
| Ingestion | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No specific data. No specific data. No specific data. No specific data. No specific data. |

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

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

| | | |
|----------------|--|---|
| General | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. May cause damage to organs through prolonged or repeated exposure. |
|----------------|--|---|

Section 11. Toxicological information

| | | |
|------------------------------|--|--|
| Carcinogenicity | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Mutagenicity | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Teratogenicity | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Developmental effects | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Fertility effects | : 2X Brilliant III SYBR® Green QPCR Master Mix Reference Dye 50× Illumina GA Primer Mix 100 pM Illumina GA Standard 200× Dilution Buffer 10× GC-Additive | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|--|----------------|
| 2X Brilliant III SYBR® Green QPCR Master Mix Oral | 183001.9 mg/kg |
| 10× GC-Additive Oral | 956 mg/kg |

Section 12. Ecological information

12.1 Toxicity

Section 12. Ecological information

| Product/ingredient name | Result | Species | Exposure |
|---|--------------------------------------|--|----------|
| 2X Brilliant III SYBR® Green QPCR Master Mix Dimethyl sulfoxide | Acute LC50 25000 ppm Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 34000000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| Potassium chloride | Acute EC50 1337000 µg/l Fresh water | Algae - Navicula seminulum | 96 hours |
| | Acute EC50 9.24 g/L Fresh water | Algae - Desmodesmus subspicatus | 72 hours |
| | Acute EC50 141460 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| 10× GC-Additive Ethenediol | Acute LC50 880000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 10000000 µg/l Fresh water | Crustaceans - Ceriodaphnia dubia - Neonate | 48 hours |
| | Acute LC50 41000000 µg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 8050000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |

12.2 Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|--------------------------------------|-------------------|------------|------------------|
| 10× GC-Additive Ethenediol | - | - | Readily |

12.3 Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|---|--------------------|------|-----------|
| 2X Brilliant III SYBR® Green QPCR Master Mix Glycerol | -1.76 | - | low |
| | -1.35 | 3.16 | low |
| | -0.46 | - | low |
| 10× GC-Additive Ethenediol | -1.36 | - | low |

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. Care should be taken when handling emptied containers that have not been

Section 13. Disposal considerations

cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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

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

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

Section 14. Transport information

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 : TSCA 8(a) PAIR: Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-

United States inventory (TSCA 8b): Not determined.

Clean Water Act (CWA) 311: Edetic acid

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

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

Composition/information on ingredients

Section 15. Regulatory information

| Name | % | Fire hazard | Sudden release of pressure | Reactive | Immediate (acute) health hazard | Delayed (chronic) health hazard |
|---|-----------|-------------|----------------------------|----------|---------------------------------|---------------------------------|
| 2X Brilliant III SYBR® Green QPCR Master Mix | | | | | | |
| Glycerol | ≥10 - <25 | No. | No. | No. | Yes. | No. |
| Dimethyl sulfoxide | ≥5 - <10 | Yes. | No. | No. | Yes. | No. |
| Potassium chloride | ≥1 - <3 | No. | No. | No. | Yes. | No. |
| 10× GC-Additive | | | | | | |
| Ethanediol | ≥50 - <75 | No. | No. | No. | Yes. | Yes. |

SARA 313

| | Product name | CAS number | % |
|--|--------------------------------------|------------|-----------|
| Form R - Reporting requirements | 10× GC-Additive Ethanediol | 107-21-1 | ≥50 - <75 |
| Supplier notification | 10× GC-Additive Ethanediol | 107-21-1 | ≥50 - <75 |

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

State regulations

- Massachusetts** : The following components are listed: GLYCERINE MIST; ETHYLENE GLYCOL
- New York** : The following components are listed: Ethylene glycol
- New Jersey** : The following components are listed: GLYCERIN; 1,2,3-PROPANETRIOL; ETHYLENE GLYCOL; 1,2-ETHANEDIOL
- Pennsylvania** : The following components are listed: 1,2,3-PROPANETRIOL; 1,2-ETHANEDIOL
- California Prop. 65**

No products were found.

Canada inventory : Not determined.

International regulations

- International lists** :
 - Australia inventory (AICS)**: Not determined.
 - China inventory (IECSC)**: All components are listed or exempted.
 - Japan inventory**: Not determined.
 - Korea inventory**: Not determined.
 - Malaysia Inventory (EHS Register)**: Not determined.
 - New Zealand Inventory of Chemicals (NZIoC)**: Not determined.
 - Philippines inventory (PICCS)**: Not determined.
 - Taiwan inventory (CSNN)**: 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 : 11/25/2015
Date of previous issue : No previous validation
Version : 1

✔ Indicates information that has changed from previously issued version.

Notice to reader

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