

SAFETY DATA SHEET



miRNA QPCR Master Mix, Part Number 600583

Section 1. Identification

Product identifier : miRNA QPCR Master Mix, Part Number 600583
Part no. (chemical kit) : 600583
Part no. : miRNA QPCR Master Mix 600583-51
 Reference Dye 600530-53

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)

Supplier/Manufacturer : Agilent Technologies Australia Pty Ltd
 679 Springvale Road
 Mulgrave
 Victoria 3170, Australia
 1800 802 402

Emergency telephone number (with hours of operation) : CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture

Not classified.

| | |
|-----------------------|---|
| miRNA QPCR Master Mix | Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10% |
| Reference Dye | Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10% |
| | Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10% |
| | Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10% |
| Reference Dye | Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 2.4% |

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

Section 2. Hazard(s) identification

Additional warning phrases : miRNA QPCR Master Mix Not applicable.
Reference Dye Not applicable.

Other hazards which do not result in classification : miRNA QPCR Master Mix None known.
Reference Dye None known.

Section 3. Composition and ingredient information

Substance/mixture : miRNA QPCR Master Mix Mixture
Reference Dye Mixture

CAS number/other identifiers

| Ingredient name | % (w/w) | CAS number |
|-----------------------------------|---------|------------|
| miRNA QPCR Master Mix Glycerol | ≤3 | 56-81-5 |

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

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. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. |
| Inhalation | : miRNA QPCR Master Mix Reference Dye | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. 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 Reference Dye | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| Ingestion | : miRNA QPCR Master Mix 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. 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 |

Section 4. First aid measures

attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

| | | |
|---------------------|--|--|
| Eye contact | : miRNA QPCR Master Mix Reference Dye | No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Inhalation | : miRNA QPCR Master Mix Reference Dye | No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Skin contact | : miRNA QPCR Master Mix Reference Dye | No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Ingestion | : miRNA QPCR Master Mix Reference Dye | No known significant effects or critical hazards. No known significant effects or critical hazards. |

Over-exposure signs/symptoms

| | | |
|---------------------|--|--|
| Eye contact | : miRNA QPCR Master Mix Reference Dye | No specific data. No specific data. |
| Inhalation | : miRNA QPCR Master Mix Reference Dye | No specific data. No specific data. |
| Skin contact | : miRNA QPCR Master Mix Reference Dye | No specific data. No specific data. |
| Ingestion | : miRNA QPCR Master Mix Reference Dye | No specific data. No specific data. |

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

| | | |
|-----------------------------------|--|--|
| Notes to physician | : miRNA QPCR Master Mix Reference Dye | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. 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. |
| Specific treatments | : miRNA QPCR Master Mix Reference Dye | No specific treatment. 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. No action shall be taken involving any personal risk or without suitable training. |

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

| | | |
|---|--|--|
| Suitable extinguishing media | : miRNA QPCR Master Mix Reference Dye | Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. |
| Unsuitable extinguishing media | : miRNA QPCR Master Mix Reference Dye | None known. None known. |
| 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. In a fire or if heated, a pressure increase will occur and the container may burst. |

Section 5. Firefighting measures

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

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

| | | |
|------------------------------------|--|--|
| For non-emergency personnel | : miRNA QPCR Master Mix 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 spilt material. Put on appropriate personal protective equipment. 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 spilt material. Put on appropriate personal protective equipment. |
| For emergency responders | : miRNA QPCR Master Mix 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". 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". |
| Environmental precautions | : miRNA QPCR Master Mix Reference Dye | Avoid dispersal of spilt 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). Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, |

Section 6. Accidental release measures

soil or air).

Methods and material for containment and cleaning up

Methods for cleaning up : miRNA 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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : miRNA QPCR Master Mix

Put on appropriate personal protective equipment (see Section 8).

Reference Dye

Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene : miRNA 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 contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : miRNA 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|-----------------------------------|---|
| miRNA QPCR Master Mix Glycerol | Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m ³ 8 hours. |

- 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

Appearance

- Physical state** : miRNA QPCR Master Mix Liquid.
Reference Dye Liquid.
- Colour** : miRNA QPCR Master Mix Not available.
Reference Dye Not available.
- Odour** : miRNA QPCR Master Mix Not available.
Reference Dye Not available.
- Odour threshold** : miRNA QPCR Master Mix Not available.
Reference Dye Not available.
- pH** : miRNA QPCR Master Mix 8
Reference Dye 8
- Melting point** : miRNA QPCR Master Mix 0°C (32°F)
Reference Dye Not available.

Section 9. Physical and chemical properties

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

Section 10. Stability and reactivity

| | | |
|---|--|--|
| Reactivity | : miRNA QPCR Master Mix Reference Dye | 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. |
| Chemical stability | : miRNA QPCR Master Mix Reference Dye | The product is stable. The product is stable. |
| Possibility of hazardous reactions | : miRNA QPCR Master Mix Reference Dye | Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid | : miRNA QPCR Master Mix Reference Dye | No specific data. No specific data. |
| Incompatible materials | : miRNA QPCR Master Mix Reference Dye | May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. |
| Hazardous decomposition products | : miRNA QPCR Master Mix Reference Dye | 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 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-----------------------------------|-----------|---------|-------------|----------|
| miRNA QPCR Master Mix Glycerol | LD50 Oral | Rat | 12600 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-----------------------------------|----------------------|---------|-------|-------------------------|-------------|
| miRNA QPCR Master Mix Glycerol | Eyes - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |

Sensitisation

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure : miRNA QPCR Master Mix Reference Dye Not available.
Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

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

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

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

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

Symptoms related to the physical, chemical and toxicological characteristics

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

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

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

Section 11. Toxicological information

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

Delayed and immediate effects as well as 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 | : miRNA QPCR Master Mix Reference Dye | No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Carcinogenicity | : miRNA QPCR Master Mix Reference Dye | No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Mutagenicity | : miRNA QPCR Master Mix Reference Dye | No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Teratogenicity | : miRNA QPCR Master Mix Reference Dye | No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Developmental effects | : miRNA QPCR Master Mix Reference Dye | No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Fertility effects | : miRNA QPCR Master Mix Reference Dye | No known significant effects or critical hazards. No known significant effects or critical hazards. |

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|-----------------------------------|-----------------------------------|----------------------------|----------|
| miRNA QPCR Master Mix Glycerol | Acute LC50 54000 mg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |

Persistence and degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|-----------------------------------|--|----------------|------|----------|
| miRNA QPCR Master Mix Glycerol | 301D Ready Biodegradability - Closed Bottle Test | 93 % - 30 days | - | - |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-----------------------------------|--------------------|-----|-----------|
| miRNA QPCR Master Mix Glycerol | -1.76 | - | low |

Section 12. Ecological information

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimised 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

ADG / IMDG / IATA : Not regulated as Dangerous Goods according to the ADG Code .

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

Standard Uniform Schedule of Medicine and Poisons

Not regulated.

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

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)

Not listed.

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.

Section 15. Regulatory information

| | |
|--------------------------|--|
| 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 | : <input checked="" type="checkbox"/> Not determined. |
| Turkey | : Not determined. |
| United States | : Not determined. |
| Viet Nam | : <input checked="" type="checkbox"/> Not determined. |

Section 16. Any other relevant information

History

| | |
|---------------------------------------|--------------|
| Date of issue/Date of revision | : 31/10/2018 |
| Date of previous issue | : 07/01/2016 |
| Version | : 5 |

Key to abbreviations

| |
|---|
| : ADG = Australian Dangerous Goods |
| : ATE = Acute Toxicity Estimate |
| : BCF = Bioconcentration Factor |
| : GHS = Globally Harmonized System of Classification and Labelling of Chemicals |
| : IATA = International Air Transport Association |
| : IBC = Intermediate Bulk Container |
| : IMDG = International Maritime Dangerous Goods |
| : LogPow = logarithm of the octanol/water partition coefficient |
| : MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) |
| : NOHSC = National Occupational Health and Safety Commission |
| : SUSMP = Standard Uniform Schedule of Medicine and Poisons |
| : UN = United Nations |

Procedure used to derive the classification

| Classification | Justification |
|-----------------|---------------|
| Not classified. | |

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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