

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
<input checked="" type="checkbox"/> 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	: <input checked="" type="checkbox"/> 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	: <input checked="" type="checkbox"/> 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	: <input checked="" type="checkbox"/> 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	: <input checked="" type="checkbox"/> 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 attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

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

Section 4. First aid measures

Inhalation	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	No known significant effects or critical hazards.
	Reference Dye	No known significant effects or critical hazards.
Skin contact	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	No known significant effects or critical hazards.
	Reference Dye	No known significant effects or critical hazards.
Ingestion	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	No known significant effects or critical hazards.
	Reference Dye	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	No specific data.
	Reference Dye	No specific data.
Inhalation	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	No specific data.
	Reference Dye	No specific data.
Skin contact	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	No specific data.
	Reference Dye	No specific data.
Ingestion	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	No specific data.
	Reference Dye	No specific data.

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

Notes to physician	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Reference Dye	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	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	No specific treatment.
	Reference Dye	No specific treatment.
Protection of first-aiders	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	No action shall be taken involving any personal risk or without suitable training.
	Reference Dye	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	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Use an extinguishing agent suitable for the surrounding fire.
	Reference Dye	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	None known.
	Reference Dye	None known.
Specific hazards arising from the chemical	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
	Reference Dye	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	Reference Dye	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides

Section 5. Firefighting measures


Special protective actions for fire-fighters	:  miRNA 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.
Special protective equipment for fire-fighters	:  miRNA 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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:  miRNA 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 spilt material. 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 spilt material. Put on appropriate personal protective equipment.
For emergency responders	:  miRNA 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".
Environmental precautions	:  miRNA QPCR Master Mix	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).
	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).

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

Section 6. Accidental release measures

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	: <input checked="" type="checkbox"/> 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	: <input checked="" type="checkbox"/> 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	: <input checked="" type="checkbox"/> 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.
	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.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
<input checked="" type="checkbox"/> miRNA QPCR Master Mix Glycerol	Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m ³ 8 hours.

Appropriate engineering controls	: <input checked="" type="checkbox"/> Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
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Section 8. Exposure controls and personal protection

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

Individual protection measures

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

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

Skin protection

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

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

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

Respiratory protection : 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	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Liquid.
	Reference Dye	Liquid.
Colour	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Not available.
	Reference Dye	Not available.
Odour	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Not available.
	Reference Dye	Not available.
Odour threshold	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Not available.
	Reference Dye	Not available.
pH	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	8
	Reference Dye	8
Melting point	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	0°C (32°F)
	Reference Dye	0°C (32°F)
Boiling point	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	100°C (212°F)
	Reference Dye	100°C (212°F)
Flash point	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Not available.
	Reference Dye	Not available.
Evaporation rate	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Not available.
	Reference Dye	Not available.
Flammability (solid, gas)	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Not applicable.
	Reference Dye	Not applicable.
Lower and upper explosive (flammable) limits	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Not available.
	Reference Dye	Not available.
Vapour pressure	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Not available.
	Reference Dye	Not available.

Section 9. Physical and chemical properties

Vapour density	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Not available.
	Reference Dye	Not available.
Relative density	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Not available.
	Reference Dye	Not available.
Solubility	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Easily soluble in the following materials: cold water and hot water.
	Reference Dye	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Not available.
	Reference Dye	Not available.
Auto-ignition temperature	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Not available.
	Reference Dye	Not available.
Decomposition temperature	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Not available.
	Reference Dye	Not available.
Viscosity	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Not available.
	Reference Dye	Not available.

Section 10. Stability and reactivity

Reactivity	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	No specific test data related to reactivity available for this product or its ingredients.
	Reference Dye	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	The product is stable.
	Reference Dye	The product is stable.
Possibility of hazardous reactions	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Under normal conditions of storage and use, hazardous reactions will not occur.
	Reference Dye	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	No specific data.
	Reference Dye	No specific data.
Incompatible materials	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	May react or be incompatible with oxidising materials.
	Reference Dye	May react or be incompatible with oxidising materials.
Hazardous decomposition products	: <input checked="" type="checkbox"/> miRNA QPCR Master Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Reference Dye	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<input checked="" type="checkbox"/> miRNA QPCR Master Mix Glycerol	LD50 Oral	Rat	12600 mg/kg	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
<input checked="" type="checkbox"/> 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

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure : miRNA QPCR Master Mix Reference Dye Routes of entry anticipated: Oral, Dermal, Inhalation.
 miRNA QPCR Master Mix Reference Dye 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.
 miRNA QPCR Master Mix Reference Dye No known significant effects or critical hazards.

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

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

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

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

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

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

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Section 11. Toxicological information

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

Not available.

General	:	<input checked="" type="checkbox"/> miRNA QPCR Master Mix Reference Dye	No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	:	<input checked="" type="checkbox"/> miRNA QPCR Master Mix Reference Dye	No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	:	<input checked="" type="checkbox"/> miRNA QPCR Master Mix Reference Dye	No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	:	<input checked="" type="checkbox"/> miRNA QPCR Master Mix Reference Dye	No known significant effects or critical hazards. No known significant effects or critical hazards.
Developmental effects	:	<input checked="" type="checkbox"/> miRNA QPCR Master Mix Reference Dye	No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	:	<input checked="" type="checkbox"/> 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

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
<input checked="" type="checkbox"/> miRNA QPCR Master Mix Glycerol	-1.76	-	low

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

Regulatory 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

Australia inventory (AICS) : Not determined.

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 Inform Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

International lists

National inventory

Canada : Not determined.
China : All components are listed or exempted.
Europe : Not determined.
Japan : **Japan inventory (ENCS):** Not determined.
Japan inventory (ISHL): Not determined.
Malaysia : Not determined.
New Zealand : Not determined.

Section 15. Regulatory information

Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.
Turkey	: Not determined.
United States	: Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 07/01/2016

Date of previous issue : 23/04/2013.

Version : 4

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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