

Agilent Technologies Australia Pty Ltd
679 Springvale Road
Mulgrave
Victoria 3170, Australia
1800 802 402

MassCode cDNA Synthesis Kit

1 . Identification of the material and supplier

Names

Product name	: MassCode cDNA Synthesis Kit	
Part No. (Chemical Kit)	: 5190-3553	
Part No.	: MassCode Reverse Transcriptase	5190-3555
	10X MassCode RT Buffer	5190-3557
	RNase Block Ribonuclease Inhibitor	5190-3556
	RNase-free water	740000-42
	Random Primers	5190-3559
	100 mM dNTP Mix	5190-3558
ADG	: Not regulated as Dangerous Goods according to the ADG Code	

Supplier

Supplier/Manufacturer	: Agilent Technologies Australia Pty Ltd 679 Springvale Road Mulgrave Victoria 3170, Australia 1800 802 402
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Emergency telephone number	: CHEMTREC®: +(44)-870-8200418
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Uses

Area of application	: MassCode Reverse Transcriptase	Industrial applications, Professional applications.
	10X MassCode RT Buffer	Industrial applications, Professional applications.
	RNase Block Ribonuclease Inhibitor	Industrial applications, Professional applications.
	RNase-free water	Industrial applications, Professional applications.
	Random Primers	Industrial applications, Professional applications.
	100 mM dNTP Mix	Industrial applications, Professional applications.

Material uses	: Analytical reagent.	
	MassCode Reverse Transcriptase	0.21 ml
	10X MassCode RT Buffer	0.42 ml
	RNase Block Ribonuclease Inhibitor	0.105 ml
	RNase-free water	1.5 ml
	Random Primers	0.66 ml
	100 mM dNTP Mix	0.168 ml

2 . Hazards identification

Classification	: MassCode Reverse Transcriptase	Not regulated.
	10X MassCode RT Buffer	Not regulated.
	RNase Block Ribonuclease Inhibitor	Not regulated.
	RNase-free water	Not regulated.
	Random Primers	Not regulated.
	100 mM dNTP Mix	Not regulated.

2 . Hazards identification

Risk phrases	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	Not classified. Not classified. Not classified. Not classified. Not classified. Not classified. Not classified.
Safety phrases	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	S36- Wear suitable protective clothing. S36- Wear suitable protective clothing. S36- Wear suitable protective clothing. S36- Wear suitable protective clothing. S36- Wear suitable protective clothing. S36- Wear suitable protective clothing. S36- Wear suitable protective clothing.
Statement of hazardous/ dangerous nature	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	NON-HAZARDOUS SUBSTANCE. NON- DANGEROUS GOODS. NON-HAZARDOUS SUBSTANCE. NON- DANGEROUS GOODS. NON-HAZARDOUS SUBSTANCE. NON- DANGEROUS GOODS. NON-HAZARDOUS SUBSTANCE. NON- DANGEROUS GOODS. NON-HAZARDOUS SUBSTANCE. NON- DANGEROUS GOODS. NON-HAZARDOUS SUBSTANCE. NON- DANGEROUS GOODS.

3 . Composition/information on ingredients

Mixture	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	Yes. Yes. Yes. Yes. Yes. Yes.
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Ingredient name	CAS number	Concentration
MassCode Reverse Transcriptase Glycerol	56-81-5	30 - 60
RNase Block Ribonuclease Inhibitor Glycerol	56-81-5	30 - 60

Other ingredients, determined not to be hazardous according to Safe Work Australia criteria, and not dangerous according to the ADG Code, make up the product concentration to 100%.

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.

4 . First-aid measures

Inhalation	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor	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. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical
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4 . First-aid measures

RNase-free water	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.
Random Primers	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
100 mM dNTP Mix	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.

Ingestion

: MassCode Reverse Transcriptase	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.
10X MassCode RT 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.
RNase Block Ribonuclease Inhibitor	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.
RNase-free water	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.
Random Primers	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 mM dNTP 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.

4 . First-aid measures

Skin contact	: MassCode Reverse Transcriptase	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	10X MassCode RT Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	RNase Block Ribonuclease Inhibitor	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	RNase-free water	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Random Primers	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	100 mM dNTP Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Eye contact	: MassCode Reverse Transcriptase	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.
	10X MassCode RT 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.
	RNase Block Ribonuclease Inhibitor	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.
	RNase-free water	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.
	Random Primers	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 mM dNTP 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.
Protection of first-aiders	: MassCode Reverse Transcriptase	No action shall be taken involving any personal risk or without suitable training.
	10X MassCode RT Buffer	No action shall be taken involving any personal risk or without suitable training.
	RNase Block Ribonuclease Inhibitor	No action shall be taken involving any personal risk or without suitable training.
	RNase-free water	No action shall be taken involving any personal risk or without suitable training.
	Random Primers	No action shall be taken involving any personal risk or without suitable training.
	100 mM dNTP Mix	No action shall be taken involving any personal risk or without suitable training.
Advice to doctor	: MassCode Reverse Transcriptase	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	10X MassCode RT Buffer	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.
	RNase Block Ribonuclease Inhibitor	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately

4 . First-aid measures

RNase-free water	if large quantities have been ingested or inhaled. No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Random Primers	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
100 mM dNTP Mix	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.

5 . Fire-fighting measures

Extinguishing media

Suitable	: MassCode Reverse Transcriptase	Use an extinguishing agent suitable for the surrounding fire.
	10X MassCode RT Buffer	Use an extinguishing agent suitable for the surrounding fire.
	RNase Block Ribonuclease Inhibitor	Use an extinguishing agent suitable for the surrounding fire.
	RNase-free water	Use an extinguishing agent suitable for the surrounding fire.
	Random Primers	Use an extinguishing agent suitable for the surrounding fire.
	100 mM dNTP Mix	Use an extinguishing agent suitable for the surrounding fire.
Not suitable	: MassCode Reverse Transcriptase	None known.
	10X MassCode RT Buffer	None known.
	RNase Block Ribonuclease Inhibitor	None known.
	RNase-free water	None known.
	Random Primers	None known.
	100 mM dNTP Mix	None known.
Special exposure hazards	: MassCode Reverse Transcriptase	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.
	10X MassCode RT 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.
	RNase Block Ribonuclease Inhibitor	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.
	RNase-free water	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.
	Random Primers	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 mM dNTP 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.

5 . Fire-fighting measures

	MassCode Reverse Transcriptase	In a fire or if heated, a pressure increase will occur and the container may burst.
	10X MassCode RT Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
	RNase Block Ribonuclease Inhibitor	In a fire or if heated, a pressure increase will occur and the container may burst.
	RNase-free water	In a fire or if heated, a pressure increase will occur and the container may burst.
	Random Primers	In a fire or if heated, a pressure increase will occur and the container may burst.
	100 mM dNTP Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: MassCode Reverse Transcriptase	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	10X MassCode RT Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
	RNase Block Ribonuclease Inhibitor	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	RNase-free water Random Primers 100 mM dNTP Mix	No specific data. No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.	

6 . Accidental release measures

Personal precautions	: MassCode Reverse Transcriptase	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 (see Section 8).
	10X MassCode RT 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 spilt material. Put on appropriate personal protective equipment (see Section 8).
	RNase Block Ribonuclease Inhibitor	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 (see Section 8).
	RNase-free water	No action shall be taken involving any personal risk or without suitable training. Evacuate

6 . Accidental release measures

		surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment (see Section 8).
	Random Primers	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 (see Section 8).
	100 mM dNTP 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 (see Section 8).
Environmental precautions	: MassCode Reverse Transcriptase	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).
	10X MassCode RT Buffer	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).
	RNase Block Ribonuclease Inhibitor	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).
	RNase-free water	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).
	Random Primers	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).
	100 mM dNTP 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).
Methods for cleaning up	: MassCode Reverse Transcriptase	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.
	10X MassCode RT 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.
	RNase Block Ribonuclease Inhibitor	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-

6 . Accidental release measures

RNase-free water

Random Primers

100 mM dNTP Mix

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. 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. 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. 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.

7 . Handling and storage

Handling

: MassCode Reverse Transcriptase

Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.

10X MassCode RT Buffer

Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.

RNase Block Ribonuclease Inhibitor

Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.

RNase-free water

Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.

Random Primers

Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment

7 . Handling and storage

	100 mM dNTP Mix	<p>before entering eating areas. Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.</p>
Storage	: MassCode Reverse Transcriptase	<p>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.</p>
	10X MassCode RT Buffer	<p>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.</p>
	RNase Block Ribonuclease Inhibitor	<p>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.</p>
	RNase-free water	<p>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.</p>
	Random Primers	<p>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.</p>

7 . Handling and storage

100 mM dNTP 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.

8 . Exposure controls/personal protection

Occupational exposure limits

<u>Ingredient name</u>	<u>Exposure limits</u>
MassCode Reverse Transcriptase Glycerol	Safe Work Australia (Australia, 7/2012). TWA: 10 mg/m ³ 8 hours.
RNase Block Ribonuclease Inhibitor Glycerol	Safe Work Australia (Australia, 7/2012). TWA: 10 mg/m ³ 8 hours.

No additional exposure standard allocated for other ingredients/components covered by the MSDS other than those listed in the table above.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Exposure controls

- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- 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.
- Eyes** : 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 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.
- Hands** : 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.
- Respiratory** : 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.
- Skin** : 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.
- 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.

9 . Physical and chemical properties

Physical state	:	MassCode Reverse Transcriptase	Liquid.
		10X MassCode RT Buffer	Liquid.
		RNase Block Ribonuclease Inhibitor	Liquid.
		RNase-free water	Liquid.
		Random Primers	Liquid.
Colour	:	100 mM dNTP Mix	Liquid.
		MassCode Reverse Transcriptase	Not available.
		10X MassCode RT Buffer	Not available.
		RNase Block Ribonuclease Inhibitor	Not available.
		RNase-free water	Colourless.
Odour		Random Primers	Not available.
		100 mM dNTP Mix	Not available.
	:	MassCode Reverse Transcriptase	Not available.
		10X MassCode RT Buffer	Not available.
		RNase Block Ribonuclease Inhibitor	Not available.
Odour threshold		RNase-free water	Odourless.
		Random Primers	Not available.
		100 mM dNTP Mix	Not available.
	:	MassCode Reverse Transcriptase	Not available.
		10X MassCode RT Buffer	Not available.
Boiling point		RNase Block Ribonuclease Inhibitor	Not available.
		RNase-free water	Not available.
		Random Primers	Not available.
		100 mM dNTP Mix	Not available.
	:	MassCode Reverse Transcriptase	Not available.
Melting point		10X MassCode RT Buffer	Not available.
		RNase Block Ribonuclease Inhibitor	Not available.
		RNase-free water	100°C (212°F)
		Random Primers	100°C (212°F)
		100 mM dNTP Mix	Not available.
Vapour pressure	:	MassCode Reverse Transcriptase	Not available.
		10X MassCode RT Buffer	Not available.
		RNase Block Ribonuclease Inhibitor	Not available.
		RNase-free water	Not available.
		Random Primers	Not available.
Relative density		100 mM dNTP Mix	Not available.
	:	MassCode Reverse Transcriptase	Not available.
		10X MassCode RT Buffer	Not available.
		RNase Block Ribonuclease Inhibitor	Not available.
		RNase-free water	Not available.
	Random Primers	Not available.	
	100 mM dNTP Mix	Not available.	

9 . Physical and chemical properties

Flash point	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Flammable limits	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Vapour density	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	Not available. Not available. Not available. Not available. Not available. Not available. Not available.
pH	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	8 8.3 7.6 Not available. 7.5 7.5
Viscosity	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Auto-ignition temperature	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Evaporation rate	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Solubility	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	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. 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.

10 . Stability and reactivity

Chemical stability	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable.
Possibility of hazardous reactions	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	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.
Conditions to avoid	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
Materials to avoid	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
Hazardous decomposition products	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	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. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 . Toxicological information

Potential acute health effects

Inhalation	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water	No known significant effects or critical hazards. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. No known significant effects or critical hazards. No known significant effects or critical hazards.
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11 . Toxicological information

	Random Primers 100 mM dNTP Mix	No known significant effects or critical hazards. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	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.
Skin contact	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	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.
Eye contact	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	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.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
MassCode Reverse Transcriptase Glycerol	LD50 Oral	Rat	12600 mg/kg	-
RNase Block Ribonuclease Inhibitor Glycerol	LD50 Oral	Rat	12600 mg/kg	-

Conclusion/Summary : Not available.

Potential chronic health effects

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
MassCode Reverse Transcriptase Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
RNase Block Ribonuclease Inhibitor Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Conclusion/Summary : Not available.

Sensitiser

Conclusion/Summary : Not available.

Chronic toxicity / Carcinogenicity / Mutagenicity / Teratogenicity / Reproductive toxicity

Not available.

11 . Toxicological information

Chronic effects	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	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.
Carcinogenicity	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	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	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	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.
Teratogenicity	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	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.
Developmental effects	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	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.
Fertility effects	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	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.
<u>Over-exposure signs/symptoms</u>		
Inhalation	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
Ingestion	: MassCode Reverse Transcriptase 10X MassCode RT Buffer RNase Block Ribonuclease Inhibitor RNase-free water Random Primers 100 mM dNTP Mix	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.

11 . Toxicological information

Skin	:	MassCode Reverse Transcriptase	No specific data.
		10X MassCode RT Buffer	No specific data.
		RNase Block Ribonuclease Inhibitor	No specific data.
		RNase-free water	No specific data.
		Random Primers	No specific data.
		100 mM dNTP Mix	No specific data.
Eyes	:	MassCode Reverse Transcriptase	No specific data.
		10X MassCode RT Buffer	No specific data.
		RNase Block Ribonuclease Inhibitor	No specific data.
		RNase-free water	No specific data.
		Random Primers	No specific data.
		100 mM dNTP Mix	No specific data.
Other adverse symptoms	:	MassCode Reverse Transcriptase	Not available.
		10X MassCode RT Buffer	Not available.
		RNase Block Ribonuclease Inhibitor	Not available.
		RNase-free water	Not available.
		Random Primers	Not available.
		100 mM dNTP Mix	Not available.
Target organs	:	MassCode Reverse Transcriptase	Contains material which may cause damage to the following organs: kidneys, upper respiratory tract, skin, eye, lens or cornea.
		10X MassCode RT Buffer	Contains material which may cause damage to the following organs: gastrointestinal tract, upper respiratory tract, skin, eye, lens or cornea.
		RNase Block Ribonuclease Inhibitor	Contains material which may cause damage to the following organs: kidneys, upper respiratory tract, skin, eye, lens or cornea.
		RNase-free water	Not available.
		Random Primers	Not available.
		100 mM dNTP Mix	Not available.

12 . Ecological information

Ecotoxicity : May cause long-term adverse effects in the aquatic environment.

Other ecological information

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
MassCode Reverse Transcriptase Glycerol	-1.76	-	low
RNase Block Ribonuclease Inhibitor Glycerol	-1.76	-	low

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

13 . Disposal considerations

Methods of disposal : 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.

14 . Transport information

Regulatory information

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

15 . Regulatory information

Standard Uniform Schedule of Medicine and Poisons

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Control of Scheduled Carcinogenic Substances

<u>Ingredient name</u>	<u>Schedule</u>
No listed substance	

Australia inventory (AICS) : At least one component is not listed.

16 . Other information

Remarks :

Date of issue : 30/06/2013

Date of previous issue : 30/05/2011.

✔ Indicates information that has changed from previously issued version.

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