

SAFETY DATA SHEET



TP53 MASTR

Section 1. Identification

Product identifier	: TP53 MASTR	
Part No. (Chemical Kit)	: MR-0160.024	
Part No.	: PCR Mix Plex 1	I-1060
	: PCR Mix Plex 2	I-1061
	: Taq DNA Polymerase	I-0650
	: AR 2	I-0793

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

Analytical reagent.

For Research Use Only. Not for use in diagnostic procedures.

PCR Mix Plex 1	0.24 ml
PCR Mix Plex 2	0.24 ml
Taq DNA Polymerase	0.008 ml
AR 2	1 ml

Supplier/Manufacturer : Agilent Technologies Belgium
De Kleetlaan 5 bus 9
1831 Diegem
Belgium

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

Section 2. Hazard(s) identification

Classification of the substance or mixture

Not classified.

PCR Mix Plex 1	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%
PCR Mix Plex 2	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%
Taq DNA Polymerase	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%
AR 2	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%

GHS label elements

Signal word : PCR Mix Plex 1 No signal word.
PCR Mix Plex 2 No signal word.
Taq DNA Polymerase No signal word.
AR 2 No signal word.

Hazard statements : PCR Mix Plex 1 No known significant effects or critical hazards.
PCR Mix Plex 2 No known significant effects or critical hazards.
Taq DNA Polymerase No known significant effects or critical hazards.
AR 2 No known significant effects or critical hazards.

Precautionary statements

Prevention : PCR Mix Plex 1 Not applicable.
PCR Mix Plex 2 Not applicable.
Taq DNA Polymerase Not applicable.
AR 2 Not applicable.

Section 2. Hazard(s) identification

Response	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	Not applicable. Not applicable. Not applicable. Not applicable.
Storage	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	Not applicable. Not applicable. Not applicable. Not applicable.
Disposal	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	Not applicable. Not applicable. Not applicable. Not applicable.
Supplemental label elements		
Additional warning phrases	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	Not applicable. Not applicable. Not applicable. Not applicable.
Other hazards which do not result in classification	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	None known. None known. None known. None known.

Section 3. Composition and ingredient information

Substance/mixture	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	Mixture Mixture Mixture Mixture
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CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
Taq DNA Polymerase		
Glycerol	≥30 - ≤60	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	: PCR Mix Plex 1	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.
	PCR Mix Plex 2	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.
	Taq DNA Polymerase	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.
	AR 2	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Section 4. First aid measures

Inhalation	: PCR Mix Plex 1	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.
	PCR Mix Plex 2	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.
	Taq DNA Polymerase	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	AR 2	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	: PCR Mix Plex 1	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	PCR Mix Plex 2	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Taq DNA Polymerase	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	AR 2	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: PCR Mix Plex 1	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.
	PCR Mix Plex 2	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.
	Taq DNA Polymerase	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.
	AR 2	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.

Section 4. First aid measures

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	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.
Inhalation	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	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	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	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.

Over-exposure signs/symptoms

Eye contact	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	No specific data. No specific data. No specific data. No specific data.
Inhalation	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	No specific data. No specific data. No specific data. No specific data.
Skin contact	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	No specific data. No specific data. No specific data. No specific data.
Ingestion	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	No specific data. No specific data. No specific data. No specific data.

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

Notes to physician	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	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. 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. 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	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	No specific treatment. No specific treatment. No specific treatment. No specific treatment.

Section 4. First aid measures

Protection of first-aiders	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training.
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See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	None known. None known. None known. None known.

Specific hazards arising from the chemical

: PCR Mix Plex 1	In a fire or if heated, a pressure increase will occur and the container may burst.
PCR Mix Plex 2	In a fire or if heated, a pressure increase will occur and the container may burst.
Taq DNA Polymerase	In a fire or if heated, a pressure increase will occur and the container may burst.
AR 2	In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products

: PCR Mix Plex 1	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides
PCR Mix Plex 2	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides
Taq DNA Polymerase	Decomposition products may include the following materials: carbon dioxide carbon monoxide
AR 2	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides

Section 5. Firefighting measures

Special protective actions for fire-fighters	: PCR Mix Plex 1	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.
	PCR Mix Plex 2	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.
	Taq DNA Polymerase	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.
	AR 2	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	: PCR Mix Plex 1	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	PCR Mix Plex 2	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Taq DNA Polymerase	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	AR 2	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	: PCR Mix Plex 1	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.
	PCR Mix Plex 2	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.
	Taq DNA Polymerase	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.
	AR 2	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.

Section 6. Accidental release measures

For emergency responders :	PCR Mix Plex 1	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".
	PCR Mix Plex 2	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".
	Taq DNA Polymerase	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".
	AR 2	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 :	PCR Mix Plex 1	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).
	PCR Mix Plex 2	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).
	Taq DNA Polymerase	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).
	AR 2	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 :	PCR Mix Plex 1	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.
	PCR Mix Plex 2	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.
	Taq DNA Polymerase	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.
	AR 2	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 6. Accidental release measures

disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	: PCR Mix Plex 1	Put on appropriate personal protective equipment (see Section 8).
	PCR Mix Plex 2	Put on appropriate personal protective equipment (see Section 8).
	Taq DNA Polymerase	Put on appropriate personal protective equipment (see Section 8).
	AR 2	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: PCR Mix Plex 1	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.
	PCR Mix Plex 2	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.
	Taq DNA Polymerase	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.
	AR 2	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	: PCR Mix Plex 1	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.
	PCR Mix Plex 2	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

Section 7. Handling and storage

Taq DNA Polymerase

incompatible materials before handling or use. 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.

AR 2

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
Taq DNA Polymerase 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.

Section 8. Exposure controls and personal protection

- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : 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	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	Liquid. Liquid. Liquid. [Clear. / solution] Liquid.
Colour	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	Not available. Not available. Colourless. Not available.
Odour	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	Not available. Not available. Not available. Not available.
Odour threshold	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	Not available. Not available. Not available. Not available.
pH	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	Not available. Not available. Not available. Not available.
Melting point	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	Not available. Not available. Not available. Not available.
Boiling point	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	Not available. Not available. Not available. Not available.
Flash point	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	Not available. Not available. Not available. Not available.
Evaporation rate	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	Not available. Not available. Not available. Not available.
Flammability (solid, gas)	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	Not applicable. Not applicable. Not applicable. Not applicable.
Lower and upper explosive (flammable) limits	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	Not available. Not available. Not available. Not available.
Vapour pressure	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	Not available. Not available. Not available. Not available.
Vapour density	:	

Section 9. Physical and chemical properties

	PCR Mix Plex 1	Not available.
	PCR Mix Plex 2	Not available.
	Taq DNA Polymerase AR 2	Not available.
Relative density	: PCR Mix Plex 1	Not available.
	PCR Mix Plex 2	Not available.
	Taq DNA Polymerase AR 2	Not available.
Solubility	: PCR Mix Plex 1	Partially soluble in the following materials: cold water and hot water.
	PCR Mix Plex 2	Partially soluble in the following materials: cold water and hot water.
	Taq DNA Polymerase AR 2	Not available. Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: PCR Mix Plex 1	Not available.
	PCR Mix Plex 2	Not available.
	Taq DNA Polymerase AR 2	Not available.
Auto-ignition temperature	: PCR Mix Plex 1	Not available.
	PCR Mix Plex 2	Not available.
	Taq DNA Polymerase AR 2	Not available.
Decomposition temperature	: PCR Mix Plex 1	Not available.
	PCR Mix Plex 2	Not available.
	Taq DNA Polymerase AR 2	Not available.
Viscosity	: PCR Mix Plex 1	Not available.
	PCR Mix Plex 2	Not available.
	Taq DNA Polymerase AR 2	Not available.

Section 10. Stability and reactivity

Reactivity	: PCR Mix Plex 1	No specific test data related to reactivity available for this product or its ingredients.
	PCR Mix Plex 2	No specific test data related to reactivity available for this product or its ingredients.
	Taq DNA Polymerase	No specific test data related to reactivity available for this product or its ingredients.
	AR 2	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: PCR Mix Plex 1	The product is stable.
	PCR Mix Plex 2	The product is stable.
	Taq DNA Polymerase	The product is stable.
	AR 2	The product is stable.
Possibility of hazardous reactions	: PCR Mix Plex 1	Under normal conditions of storage and use, hazardous reactions will not occur.
	PCR Mix Plex 2	Under normal conditions of storage and use, hazardous reactions will not occur.
	Taq DNA Polymerase	Under normal conditions of storage and use, hazardous reactions will not occur.
	AR 2	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: PCR Mix Plex 1	No specific data.
	PCR Mix Plex 2	No specific data.
	Taq DNA Polymerase	No specific data.
	AR 2	No specific data.

Section 10. Stability and reactivity

Incompatible materials	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
Hazardous decomposition products	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Taq DNA Polymerase Glycerol	LD50 Oral	Rat	12600 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Taq DNA Polymerase 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.

Section 11. Toxicological information

Information on likely routes of exposure : PCR Mix Plex 1 Not available.
 PCR Mix Plex 2 Not available.
 Taq DNA Polymerase Routes of entry anticipated: Oral, Dermal, Inhalation.
 AR 2 Not available.

Potential acute health effects

Eye contact : PCR Mix Plex 1 No known significant effects or critical hazards.
 PCR Mix Plex 2 No known significant effects or critical hazards.
 Taq DNA Polymerase No known significant effects or critical hazards.
 AR 2 No known significant effects or critical hazards.

Inhalation : PCR Mix Plex 1 No known significant effects or critical hazards.
 PCR Mix Plex 2 No known significant effects or critical hazards.
 Taq DNA Polymerase No known significant effects or critical hazards.
 AR 2 No known significant effects or critical hazards.

Skin contact : PCR Mix Plex 1 No known significant effects or critical hazards.
 PCR Mix Plex 2 No known significant effects or critical hazards.
 Taq DNA Polymerase No known significant effects or critical hazards.
 AR 2 No known significant effects or critical hazards.

Ingestion : PCR Mix Plex 1 No known significant effects or critical hazards.
 PCR Mix Plex 2 No known significant effects or critical hazards.
 Taq DNA Polymerase No known significant effects or critical hazards.
 AR 2 No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : PCR Mix Plex 1 No specific data.
 PCR Mix Plex 2 No specific data.
 Taq DNA Polymerase No specific data.
 AR 2 No specific data.

Inhalation : PCR Mix Plex 1 No specific data.
 PCR Mix Plex 2 No specific data.
 Taq DNA Polymerase No specific data.
 AR 2 No specific data.

Skin contact : PCR Mix Plex 1 No specific data.
 PCR Mix Plex 2 No specific data.
 Taq DNA Polymerase No specific data.
 AR 2 No specific data.

Ingestion : PCR Mix Plex 1 No specific data.
 PCR Mix Plex 2 No specific data.
 Taq DNA Polymerase No specific data.
 AR 2 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

Not available.

General : PCR Mix Plex 1 No known significant effects or critical hazards.
 PCR Mix Plex 2 No known significant effects or critical hazards.
 Taq DNA Polymerase No known significant effects or critical hazards.
 AR 2 No known significant effects or critical hazards.

Section 11. Toxicological information

Carcinogenicity	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	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	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	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	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	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	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	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	: PCR Mix Plex 1 PCR Mix Plex 2 Taq DNA Polymerase AR 2	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Taq DNA Polymerase Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Taq DNA Polymerase Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Taq DNA Polymerase 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

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	: Not determined.
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.

Section 15. Regulatory information

Taiwan	: Not determined.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 18/01/2018

Date of previous issue : 30/08/2017.

Version : 2

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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