

SAFETY DATA SHEET

Clarigo v2

Section 1. Identification

Product identifier : Clarigo v2
Part no. (chemical kit) : MR-2501.096
Part no. : AR 1 I-0801
 Clarigo PCR Mix I-2143
 Taq DNA Polymerase I-1707

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

Material uses : For In Vitro Diagnostic Use
 5.0184 ml
 AR 1 1 x 1 ml
 Clarigo PCR Mix 4 x 1 ml
 Taq DNA Polymerase 1 x 0.018 ml

Supplier/Manufacturer : Agilent Technologies Belgium
 De Kleetlaan 5 bus 9
 1831 Diegem
 Belgium
 Tel.: +32(0)2 404 90 00

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

Section 2. Hazard(s) identification

Classification of the substance or mixture

Clarigo PCR Mix
 H412 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

Taq DNA Polymerase
 H412 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
 Clarigo PCR Mix Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 2.2%

GHS label elements

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

Hazard statements : AR 1 No known significant effects or critical hazards.
 Clarigo PCR Mix H412 - Harmful to aquatic life with long lasting effects.
 Taq DNA Polymerase H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention : AR 1 Not applicable.
 Clarigo PCR Mix P273 - Avoid release to the environment.
 Taq DNA Polymerase P273 - Avoid release to the environment.

Response : AR 1 Not applicable.
 Clarigo PCR Mix Not applicable.
 Taq DNA Polymerase Not applicable.

Storage : AR 1 Not applicable.
 Clarigo PCR Mix Not applicable.
 Taq DNA Polymerase Not applicable.

Section 2. Hazard(s) identification

Disposal	: <input checked="" type="checkbox"/> R 1 Clarigo PCR Mix Taq DNA Polymerase	Not applicable. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements		
Additional warning phrases	: <input checked="" type="checkbox"/> R 1 Clarigo PCR Mix Taq DNA Polymerase	Not applicable. Not applicable. Not applicable.
Other hazards which do not result in classification	: <input checked="" type="checkbox"/> R 1 Clarigo PCR Mix Taq DNA Polymerase	None known. None known. None known.

Section 3. Composition and ingredient information

Substance/mixture	: <input checked="" type="checkbox"/> R 1 Clarigo PCR Mix Taq DNA Polymerase	Mixture Mixture Mixture
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CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
<input checked="" type="checkbox"/> Clarigo PCR Mix Magnesium chloride	≤0.3	7786-30-3
Taq DNA Polymerase Glycerol	≥30 - ≤60	56-81-5
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	<1	9036-19-5

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"/> R 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.
	Clarigo PCR Mix	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. 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. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Section 4. First aid measures





Inhalation	:  R 1	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Clarigo PCR Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	:  R 1	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Clarigo PCR Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	Taq DNA Polymerase	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:  R 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.
	Clarigo PCR Mix	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	Taq DNA Polymerase	Wash out mouth with water. Remove dentures if any.

Section 4. First aid measures





Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed



Potential acute health effects

Eye contact	:  R 1 Clarigo PCR Mix Taq DNA Polymerase	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Inhalation	:  R 1 Clarigo PCR Mix Taq DNA Polymerase	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	:  R 1 Clarigo PCR Mix Taq DNA Polymerase	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	:  R 1 Clarigo PCR Mix Taq DNA Polymerase	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	:  R 1 Clarigo PCR Mix Taq DNA Polymerase	No specific data. No specific data. No specific data.
Inhalation	:  R 1 Clarigo PCR Mix Taq DNA Polymerase	No specific data. No specific data. No specific data.
Skin contact	:  R 1 Clarigo PCR Mix Taq DNA Polymerase	No specific data. No specific data. No specific data.
Ingestion	:  R 1 Clarigo PCR Mix Taq DNA Polymerase	No specific data. No specific data. No specific data.

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

Notes to physician	:  R 1 Clarigo PCR Mix Taq DNA Polymerase	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. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:  R 1 Clarigo PCR Mix Taq DNA Polymerase	No specific treatment. No specific treatment. No specific treatment.






Section 4. First aid measures

Protection of first-aiders	:  R 1	No action shall be taken involving any personal risk or without suitable training.
	Clarigo PCR Mix	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	Taq DNA Polymerase	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.


See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media




Suitable extinguishing media	:  R 1	Use an extinguishing agent suitable for the surrounding fire.
	Clarigo PCR Mix	Use an extinguishing agent suitable for the surrounding fire.
	Taq DNA Polymerase	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:  R 1	None known.
	Clarigo PCR Mix	None known.
	Taq DNA Polymerase	None known.
Specific hazards arising from the chemical	:  R 1	In a fire or if heated, a pressure increase will occur and the container may burst.
	Clarigo PCR Mix	In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
	Taq DNA Polymerase	In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	:  R 1	No specific data.
	Clarigo PCR Mix	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
	Taq DNA Polymerase	Decomposition products may include the following materials: carbon dioxide carbon monoxide
Special protective actions for fire-fighters	:  R 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.
	Clarigo PCR 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.
	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.

Section 5. Firefighting measures

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

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:  AR 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.
	Clarigo PCR 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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:  AR 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".
	Clarigo PCR 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".
	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".
Environmental precautions	:  AR 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).
	Clarigo PCR 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). Water polluting material. May be harmful to the environment if released in large quantities.
	Taq DNA Polymerase	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 6. Accidental release measures

Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and material for containment and cleaning up

Methods for cleaning up : AR 1

Clarigo PCR 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.

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.

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : AR 1

Clarigo PCR Mix

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

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Taq DNA Polymerase

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : AR 1

Clarigo PCR 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.

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

Section 7. Handling and storage

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 :  R 1

Clarigo PCR Mix

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Taq DNA Polymerase


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.

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, 12/2019). 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](#)

Section 8. Exposure controls and personal protection

- 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- 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"/> AR 1	Liquid.
	Clarigo PCR Mix	Liquid.
	Taq DNA Polymerase	Liquid. [Clear. / solution]
Colour	: <input checked="" type="checkbox"/> AR 1	Not available.
	Clarigo PCR Mix	Not available.
	Taq DNA Polymerase	Colourless.
Odour	: <input checked="" type="checkbox"/> AR 1	Not available.
	Clarigo PCR Mix	Not available.
	Taq DNA Polymerase	Not available.
Odour threshold	: <input checked="" type="checkbox"/> AR 1	Not available.
	Clarigo PCR Mix	Not available.
	Taq DNA Polymerase	Not available.
pH	: <input checked="" type="checkbox"/> AR 1	Not available.
	Clarigo PCR Mix	Not available.
	Taq DNA Polymerase	Not available.
Melting point	: <input checked="" type="checkbox"/> AR 1	0°C (32°F)
	Clarigo PCR Mix	Not available.
	Taq DNA Polymerase	Not available.
Boiling point	: <input checked="" type="checkbox"/> AR 1	100°C (212°F)
	Clarigo PCR Mix	Not available.
	Taq DNA Polymerase	Not available.
Flash point	: <input checked="" type="checkbox"/> AR 1	Not available.
	Clarigo PCR Mix	Not available.
	Taq DNA Polymerase	Not available.
Evaporation rate	: <input checked="" type="checkbox"/> AR 1	Not available.
	Clarigo PCR Mix	Not available.
	Taq DNA Polymerase	Not available.

Section 9. Physical and chemical properties

Flammability (solid, gas)	: AR 1 Clarigo PCR Mix Taq DNA Polymerase	Not applicable. Not applicable. Not applicable.
Lower and upper explosive (flammable) limits	: AR 1 Clarigo PCR Mix Taq DNA Polymerase	Not available. Not available. Not available.
Vapour pressure	: AR 1 Clarigo PCR Mix Taq DNA Polymerase	Not available. Not available. Not available.
Vapour density	: AR 1 Clarigo PCR Mix Taq DNA Polymerase	Not available. Not available. Not available.
Relative density	: AR 1 Clarigo PCR Mix Taq DNA Polymerase	Not available. Not available. Not available.
Solubility	: AR 1 Clarigo PCR Mix Taq DNA Polymerase	Easily soluble in the following materials: cold water and hot water. Partially soluble in the following materials: cold water and hot water. Not available.
Partition coefficient: n-octanol/water	: AR 1 Clarigo PCR Mix Taq DNA Polymerase	Not available. Not available. Not available.
Auto-ignition temperature	: AR 1 Clarigo PCR Mix Taq DNA Polymerase	Not available. Not available. Not available.
Decomposition temperature	: AR 1 Clarigo PCR Mix Taq DNA Polymerase	Not available. Not available. Not available.
Viscosity	: AR 1 Clarigo PCR Mix Taq DNA Polymerase	Not available. Not available. Not available.

Section 10. Stability and reactivity

Reactivity	: AR 1 Clarigo PCR Mix Taq DNA Polymerase	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: AR 1 Clarigo PCR Mix Taq DNA Polymerase	The product is stable. The product is stable. The product is stable.
Possibility of hazardous reactions	: AR 1 Clarigo PCR Mix Taq DNA Polymerase	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	: AR 1 Clarigo PCR Mix Taq DNA Polymerase	No specific data. No specific data. No specific data.
Incompatible materials	: AR 1 Clarigo PCR Mix Taq DNA Polymerase	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.

Section 10. Stability and reactivity

Hazardous decomposition products :  R 1

Clarigo PCR Mix

Taq DNA Polymerase

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
 Clarigo PCR Mix Magnesium chloride	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat	2800 mg/kg	-
Taq DNA Polymerase Glycerol	LD50 Oral	Rat	12600 mg/kg	-
	LD50 Oral	Rat	2800 mg/kg	-
Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	LD50 Oral	Rat	12600 mg/kg	-
	LD50 Oral	Rat	2800 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
 Taq DNA Polymerase Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	Eyes - Severe irritant	Rabbit	-	1 %	-

Sensitisation

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Section 11. Toxicological information

Information on likely routes of exposure : **AR 1**
 Clarigo PCR Mix
 Taq DNA Polymerase

Not available.
 Routes of entry anticipated: Oral, Dermal, Inhalation.
 Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact : **AR 1**
 Clarigo PCR Mix
 Taq DNA Polymerase

Inhalation : **AR 1**
 Clarigo PCR Mix
 Taq DNA Polymerase

Skin contact : **AR 1**
 Clarigo PCR Mix
 Taq DNA Polymerase

Ingestion : **AR 1**
 Clarigo PCR Mix
 Taq DNA Polymerase

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.
 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.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : **AR 1**
 Clarigo PCR Mix
 Taq DNA Polymerase

Inhalation : **AR 1**
 Clarigo PCR Mix
 Taq DNA Polymerase

Skin contact : **AR 1**
 Clarigo PCR Mix
 Taq DNA Polymerase

Ingestion : **AR 1**
 Clarigo PCR Mix
 Taq DNA Polymerase

No specific data.
 No specific data.
 No specific data.
 No specific data.
 No specific data.
 No specific data.
 No specific data.

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

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

General : **AR 1**
 Clarigo PCR Mix
 Taq DNA Polymerase

Carcinogenicity : **AR 1**
 Clarigo PCR Mix
 Taq DNA Polymerase

Mutagenicity : **AR 1**
 Clarigo PCR Mix
 Taq DNA Polymerase

Reproductive toxicity : **AR 1**
 Clarigo PCR Mix
 Taq DNA Polymerase

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.
 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

Section 11. Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Clarigo PCR Mix Magnesium chloride	2800	N/A	N/A	N/A	N/A
Taq DNA Polymerase Glycerol	12600	N/A	N/A	N/A	N/A
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	500	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Clarigo PCR Mix Magnesium chloride	Acute EC50 >100 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 180000 µg/l Fresh water	Crustaceans - Eudiaptomus padanus ssp. padanus - Adult	48 hours
	Acute IC50 6.8 mg/l Fresh water	Aquatic plants - Lemna aequinoctialis	96 hours
	Acute LC50 32000 µg/l Fresh water	Daphnia - Daphnia hyalina - Adult	48 hours
	Acute LC50 2120 mg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute NOEC 100 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Chronic NOEC 0.1 mg/l Fresh water	Fish - Cyprinus carpio	35 days
Taq DNA Polymerase Glycerol Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute EC50 210 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute LC50 10800 µg/l Marine water	Crustaceans - Pandalus montagui - Adult	48 hours
	Acute LC50 8600 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 7200 µg/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

Section 12. Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
Taq DNA Polymerase			
Glycerol	-1.76	-	low
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	3.77	78.67	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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spill 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 IMO instruments : Not available.

Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines 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

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

Section 15. Regulatory information

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.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
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 : 29/03/2021

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Version : 2

Key to abbreviations

: ADG = Australian Dangerous Goods
 ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
 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)
 N/A = Not available
 SUSMP = Standard Uniform Schedule of Medicine and Poisons
 UN = United Nations

Procedure used to derive the classification

Classification	Justification
Clarigo PCR Mix LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3	Calculation method
Taq DNA Polymerase LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3	Calculation method

References : Not available.

☑ Indicates information that has changed from previously issued version.

Notice to reader

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