

# SAFETY DATA SHEET



PfuUltra High-Fidelity DNA Polymerase AD, Part Number 600385

## Section 1. Identification

**Product identifier** : PfuUltra High-Fidelity DNA Polymerase AD, Part Number 600385  
**Part No. (Chemical Kit)** : 600385  
**Part No.** : PfuUltra DNA Polymerase AD 600385-51  
 10X PfuUltra Reaction Buffer AD 600385-52

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

Analytical reagent.

PfuUltra DNA Polymerase AD	0.04 ml (100 U 2.5 U/μl)
10X PfuUltra Reaction Buffer AD	1 ml

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

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

## Section 2. Hazard(s) identification

### Classification of the substance or mixture

Not classified.

10X PfuUltra Reaction Buffer AD	Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 3.2%
10X PfuUltra Reaction Buffer AD	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 5.2%

### GHS label elements

**Signal word** : PfuUltra DNA Polymerase AD No signal word.  
 10X PfuUltra Reaction Buffer AD No signal word.

**Hazard statements** : PfuUltra DNA Polymerase AD No known significant effects or critical hazards.  
 10X PfuUltra Reaction Buffer AD No known significant effects or critical hazards.

### Precautionary statements

**Prevention** : PfuUltra DNA Polymerase AD Not applicable.  
 10X PfuUltra Reaction Buffer AD Not applicable.

**Response** : PfuUltra DNA Polymerase AD Not applicable.  
 10X PfuUltra Reaction Buffer AD Not applicable.

**Storage** : PfuUltra DNA Polymerase AD Not applicable.  
 10X PfuUltra Reaction Buffer AD Not applicable.

## Section 2. Hazard(s) identification

<b>Disposal</b>	: PfuUltra DNA Polymerase AD	Not applicable.
	10X PfuUltra Reaction Buffer AD	Not applicable.
<b>Supplemental label elements</b>	: PfuUltra DNA Polymerase AD	Not applicable.
	10X PfuUltra Reaction Buffer AD	Not applicable.
<b>Other hazards which do not result in classification</b>	: PfuUltra DNA Polymerase AD	None known.
	10X PfuUltra Reaction Buffer AD	None known.

## Section 3. Composition and ingredient information

<b>Substance/mixture</b>	: PfuUltra DNA Polymerase AD	Mixture
	10X PfuUltra Reaction Buffer AD	Mixture

### CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
PfuUltra DNA Polymerase AD		
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

<b>Eye contact</b>	: PfuUltra DNA Polymerase AD	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 PfuUltra Reaction Buffer AD	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.
<b>Inhalation</b>	: PfuUltra DNA Polymerase AD	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	10X PfuUltra Reaction Buffer AD	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.
<b>Skin contact</b>	: PfuUltra DNA Polymerase AD	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	10X PfuUltra Reaction Buffer AD	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

## Section 4. First aid measures

<b>Ingestion</b>	: PfuUltra DNA Polymerase AD	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 PfuUltra Reaction Buffer AD	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

<b>Eye contact</b>	: PfuUltra DNA Polymerase AD	No known significant effects or critical hazards.
	: 10X PfuUltra Reaction Buffer AD	No known significant effects or critical hazards.
<b>Inhalation</b>	: PfuUltra DNA Polymerase AD	No known significant effects or critical hazards.
	: 10X PfuUltra Reaction Buffer AD	No known significant effects or critical hazards.
<b>Skin contact</b>	: PfuUltra DNA Polymerase AD	No known significant effects or critical hazards.
	: 10X PfuUltra Reaction Buffer AD	No known significant effects or critical hazards.
<b>Ingestion</b>	: PfuUltra DNA Polymerase AD	No known significant effects or critical hazards.
	: 10X PfuUltra Reaction Buffer AD	No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

<b>Eye contact</b>	: PfuUltra DNA Polymerase AD	No specific data.
	: 10X PfuUltra Reaction Buffer AD	No specific data.
<b>Inhalation</b>	: PfuUltra DNA Polymerase AD	No specific data.
	: 10X PfuUltra Reaction Buffer AD	No specific data.
<b>Skin contact</b>	: PfuUltra DNA Polymerase AD	No specific data.
	: 10X PfuUltra Reaction Buffer AD	No specific data.
<b>Ingestion</b>	: PfuUltra DNA Polymerase AD	No specific data.
	: 10X PfuUltra Reaction Buffer AD	No specific data.

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

<b>Notes to physician</b>	: PfuUltra DNA Polymerase AD	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	: 10X PfuUltra Reaction Buffer AD	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.

## Section 4. First aid measures

<b>Specific treatments</b>	: PfuUltra DNA Polymerase AD	No specific treatment.
	: 10X PfuUltra Reaction Buffer AD	No specific treatment.
<b>Protection of first-aiders</b>	: PfuUltra DNA Polymerase AD	No action shall be taken involving any personal risk or without suitable training.
	: 10X PfuUltra Reaction Buffer AD	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

## Section 5. Firefighting measures

### Extinguishing media

<b>Suitable extinguishing media</b>	: PfuUltra DNA Polymerase AD	Use an extinguishing agent suitable for the surrounding fire.
	: 10X PfuUltra Reaction Buffer AD	Use an extinguishing agent suitable for the surrounding fire.

<b>Unsuitable extinguishing media</b>	: PfuUltra DNA Polymerase AD	None known.
	: 10X PfuUltra Reaction Buffer AD	None known.

<b>Specific hazards arising from the chemical</b>	: PfuUltra DNA Polymerase AD	In a fire or if heated, a pressure increase will occur and the container may burst.
	: 10X PfuUltra Reaction Buffer AD	In a fire or if heated, a pressure increase will occur and the container may burst.

<b>Hazardous thermal decomposition products</b>	: PfuUltra DNA Polymerase AD	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	: 10X PfuUltra Reaction Buffer AD	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides halogenated compounds

<b>Special protective actions for fire-fighters</b>	: PfuUltra DNA Polymerase AD	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 PfuUltra Reaction Buffer AD	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.

<b>Special protective equipment for fire-fighters</b>	: PfuUltra DNA Polymerase AD	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	: 10X PfuUltra Reaction Buffer AD	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

<b>For non-emergency personnel</b>	: PfuUltra DNA Polymerase AD	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.
	: 10X PfuUltra Reaction Buffer AD	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.
<b>For emergency responders</b>	: PfuUltra DNA Polymerase AD	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".
	: 10X PfuUltra Reaction Buffer AD	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".
<b>Environmental precautions</b>	: PfuUltra DNA Polymerase AD	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 PfuUltra Reaction Buffer AD	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

<b>Methods for cleaning up</b>	: PfuUltra DNA Polymerase AD	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 PfuUltra Reaction Buffer AD	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

<b>Protective measures</b>	: PfuUltra DNA Polymerase AD	Put on appropriate personal protective equipment (see Section 8).
	: 10X PfuUltra Reaction Buffer AD	Put on appropriate personal protective equipment (see Section 8).

## Section 7. Handling and storage

<b>Advice on general occupational hygiene</b>	: PfuUltra DNA Polymerase AD	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.
	10X PfuUltra Reaction Buffer AD	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.
<b>Conditions for safe storage, including any incompatibilities</b>	: PfuUltra DNA Polymerase AD	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.
	10X PfuUltra Reaction Buffer AD	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls and personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
PfuUltra DNA Polymerase AD Glycerol	<b>Safe Work Australia (Australia, 1/2014).</b> TWA: 10 mg/m <sup>3</sup> 8 hours.

<b>Appropriate engineering controls</b>	: If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
<b>Environmental exposure controls</b>	: 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.
<b><u>Individual protection measures</u></b>	
<b>Hygiene measures</b>	: 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.

## Section 8. Exposure controls and personal protection

- 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** : PfuUltra DNA Polymerase AD Liquid.  
10X PfuUltra Reaction Buffer AD Liquid.
- Colour** : PfuUltra DNA Polymerase AD Not available.  
10X PfuUltra Reaction Buffer AD Not available.
- Odour** : PfuUltra DNA Polymerase AD Not available.  
10X PfuUltra Reaction Buffer AD Not available.
- Odour threshold** : PfuUltra DNA Polymerase AD Not available.  
10X PfuUltra Reaction Buffer AD Not available.
- pH** : PfuUltra DNA Polymerase AD 8.2  
10X PfuUltra Reaction Buffer AD 8.8
- Melting point** : PfuUltra DNA Polymerase AD Not available.  
10X PfuUltra Reaction Buffer AD Not available.
- Boiling point** : PfuUltra DNA Polymerase AD Not available.  
10X PfuUltra Reaction Buffer AD Not available.
- Flash point** : PfuUltra DNA Polymerase AD Not available.  
10X PfuUltra Reaction Buffer AD Not available.



## Section 9. Physical and chemical properties

<b>Evaporation rate</b>	: PfuUltra DNA Polymerase AD 10X PfuUltra Reaction Buffer AD	Not available. Not available.
<b>Flammability (solid, gas)</b>	: PfuUltra DNA Polymerase AD 10X PfuUltra Reaction Buffer AD	Not applicable. Not applicable.
<b>Lower and upper explosive (flammable) limits</b>	: PfuUltra DNA Polymerase AD 10X PfuUltra Reaction Buffer AD	Not available. Not available.
<b>Vapour pressure</b>	: PfuUltra DNA Polymerase AD 10X PfuUltra Reaction Buffer AD	Not available. Not available.
<b>Vapour density</b>	: PfuUltra DNA Polymerase AD 10X PfuUltra Reaction Buffer AD	Not available. Not available.
<b>Relative density</b>	: PfuUltra DNA Polymerase AD 10X PfuUltra Reaction Buffer AD	Not available. Not available.
<b>Solubility</b>	: PfuUltra DNA Polymerase AD 10X PfuUltra Reaction Buffer AD	Soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: PfuUltra DNA Polymerase AD 10X PfuUltra Reaction Buffer AD	Not available. Not available.
<b>Auto-ignition temperature</b>	: PfuUltra DNA Polymerase AD 10X PfuUltra Reaction Buffer AD	Not available. Not available.
<b>Decomposition temperature</b>	: PfuUltra DNA Polymerase AD 10X PfuUltra Reaction Buffer AD	Not available. Not available.
<b>Viscosity</b>	: PfuUltra DNA Polymerase AD 10X PfuUltra Reaction Buffer AD	Not available. Not available.

## Section 10. Stability and reactivity

<b>Reactivity</b>	: PfuUltra DNA Polymerase AD 10X PfuUltra Reaction Buffer AD	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.
<b>Chemical stability</b>	: PfuUltra DNA Polymerase AD 10X PfuUltra Reaction Buffer AD	The product is stable. The product is stable.



## Section 10. Stability and reactivity

<b>Possibility of hazardous reactions</b>	: PfuUltra DNA Polymerase AD	Under normal conditions of storage and use, hazardous reactions will not occur.
	: 10X PfuUltra Reaction Buffer AD	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: PfuUltra DNA Polymerase AD	No specific data.
	: 10X PfuUltra Reaction Buffer AD	No specific data.
<b>Incompatible materials</b>	: PfuUltra DNA Polymerase AD	May react or be incompatible with oxidising materials.
	: 10X PfuUltra Reaction Buffer AD	May react or be incompatible with oxidising materials.
<b>Hazardous decomposition products</b>	: PfuUltra DNA Polymerase AD	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	: 10X PfuUltra Reaction Buffer AD	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
PfuUltra DNA Polymerase AD Glycerol	LD50 Oral	Rat	12600 mg/kg	-

#### Irritation/Corrosion

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

## Section 11. Toxicological information

### Aspiration hazard

Not available.

**Information on likely routes of exposure** : PfuUltra DNA Polymerase AD Routes of entry anticipated: Oral, Dermal, Inhalation.  
 10X PfuUltra Reaction Buffer AD Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

**Eye contact** : PfuUltra DNA Polymerase AD No known significant effects or critical hazards.  
 10X PfuUltra Reaction Buffer AD No known significant effects or critical hazards.

**Inhalation** : PfuUltra DNA Polymerase AD No known significant effects or critical hazards.  
 10X PfuUltra Reaction Buffer AD No known significant effects or critical hazards.

**Skin contact** : PfuUltra DNA Polymerase AD No known significant effects or critical hazards.  
 10X PfuUltra Reaction Buffer AD No known significant effects or critical hazards.

**Ingestion** : PfuUltra DNA Polymerase AD No known significant effects or critical hazards.  
 10X PfuUltra Reaction Buffer AD No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : PfuUltra DNA Polymerase AD No specific data.  
 10X PfuUltra Reaction Buffer AD No specific data.

**Inhalation** : PfuUltra DNA Polymerase AD No specific data.  
 10X PfuUltra Reaction Buffer AD No specific data.

**Skin contact** : PfuUltra DNA Polymerase AD No specific data.  
 10X PfuUltra Reaction Buffer AD No specific data.

**Ingestion** : PfuUltra DNA Polymerase AD No specific data.  
 10X PfuUltra Reaction Buffer AD 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.

## Section 11. Toxicological information

<b>General</b>	: PfuUltra DNA Polymerase AD	No known significant effects or critical hazards.
	: 10X PfuUltra Reaction Buffer AD	No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: PfuUltra DNA Polymerase AD	No known significant effects or critical hazards.
	: 10X PfuUltra Reaction Buffer AD	No known significant effects or critical hazards.
<b>Mutagenicity</b>	: PfuUltra DNA Polymerase AD	No known significant effects or critical hazards.
	: 10X PfuUltra Reaction Buffer AD	No known significant effects or critical hazards.
<b>Teratogenicity</b>	: PfuUltra DNA Polymerase AD	No known significant effects or critical hazards.
	: 10X PfuUltra Reaction Buffer AD	No known significant effects or critical hazards.
<b>Developmental effects</b>	: PfuUltra DNA Polymerase AD	No known significant effects or critical hazards.
	: 10X PfuUltra Reaction Buffer AD	No known significant effects or critical hazards.
<b>Fertility effects</b>	: PfuUltra DNA Polymerase AD	No known significant effects or critical hazards.
	: 10X PfuUltra Reaction Buffer AD	No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
<b>10X PfuUltra Reaction Buffer AD</b>	
Oral	25000 mg/kg
Dermal	55000 mg/kg
Inhalation (vapours)	550 mg/l

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
<b>PfuUltra DNA Polymerase AD</b>			
Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

### Persistence and degradability

Not available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>PfuUltra DNA Polymerase AD</b>			
Glycerol	-1.76	-	low

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

## Section 12. Ecological information

**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

### Regulatory information

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

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of Marpol and the IBC Code** : Not available.

## Section 15. Regulatory information

### Standard Uniform Schedule of Medicine and Poisons

Not regulated.

### Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

**Australia inventory (AICS)** : Not determined.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### International lists

#### National inventory

**Canada** : Not determined.

**China** : Not determined.

## Section 15. Regulatory information

Europe	: Not determined.
Japan	: <input checked="" type="checkbox"/> Japan inventory (ENCS): Not determined. Japan inventory (ISHL): Not determined.
Malaysia	: Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: All components are listed or exempted.
Turkey	: Not determined.
United States	: Not determined.

## Section 16. Any other relevant information

### History

Date of issue/Date of revision : 28/04/2017

Date of previous issue : 29/09/2016.

Version : 5

### Key to abbreviations

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

### Procedure used to derive the classification

Classification	Justification
Not classified.	

References : Not available.

Indicates information that has changed from previously issued version.

### Notice to reader

**Disclaimer:** The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.