

SAFETY DATA SHEET



pH Buffer Package (4.01, 7.00, 10.01), Part Number 5190-0533

Section 1. Identification

Product identifier : pH Buffer Package (4.01, 7.00, 10.01), Part Number 5190-0533

Part No. (Chemical Kit) : 5190-0533

Part No. : Buffer, pH 4.01 - Color Coded Red, 5190-0535-1
Standard

Buffer, pH 7.00 - Color Coded Yellow, 5190-0537-1
Standard

Buffer, pH 10.01 - Color Coded Blue, 5190-0536-1
Standard

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

Analytical chemistry.

Buffer, pH 4.01 - Color Coded Red, Standard 1 x 250 ml

Buffer, pH 7.00 - Color Coded Yellow, Standard 1 x 250 ml

Buffer, pH 10.01 - Color Coded Blue, Standard 1 x 250 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.

Buffer, pH 4.01 - Color Coded Red, Standard	Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 1%
Buffer, pH 7.00 - Color Coded Yellow, Standard	Not applicable.
Buffer, pH 10.01 - Color Coded Blue, Standard	Not applicable.
Buffer, pH 4.01 - Color Coded Red, Standard	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1%
Buffer, pH 7.00 - Color Coded Yellow, Standard	Not applicable.
Buffer, pH 10.01 - Color Coded Blue, Standard	Not applicable.

GHS label elements

Signal word : Buffer, pH 4.01 - Color Coded Red, Standard No signal word.

Buffer, pH 7.00 - Color Coded Yellow, Standard No signal word.

Buffer, pH 10.01 - Color Coded Blue, Standard No signal word.

Section 2. Hazard(s) identification

Hazard statements	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Precautionary statements		
Prevention	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	Not applicable. Not applicable. Not applicable.
Response	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	Not applicable. Not applicable. Not applicable.
Storage	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	Not applicable. Not applicable. Not applicable.
Disposal	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	Not applicable. Not applicable. Not applicable.
Supplemental label elements	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	Not applicable. Not applicable. Not applicable.
Other hazards which do not result in classification	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	None known. None known. None known.

Section 3. Composition and ingredient information

Substance/mixture	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	Mixture Mixture Mixture
--------------------------	--	-------------------------------

CAS number/other identifiers

There are no 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	: Buffer, pH 4.01 - Color Coded Red, Standard	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.
	Buffer, pH 7.00 - Color Coded Yellow, Standard	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.
	Buffer, pH 10.01 - Color Coded Blue, Standard	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	: Buffer, pH 4.01 - Color Coded Red, Standard	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Buffer, pH 7.00 - Color Coded Yellow, Standard	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Buffer, pH 10.01 - Color Coded Blue, Standard	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: Buffer, pH 4.01 - Color Coded Red, Standard	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Buffer, pH 7.00 - Color Coded Yellow, Standard	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Buffer, pH 10.01 - Color Coded Blue, Standard	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: Buffer, pH 4.01 - Color Coded Red, Standard	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.
	Buffer, pH 7.00 - Color Coded Yellow, Standard	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.
	Buffer, pH 10.01 - Color Coded Blue, Standard	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: Buffer, pH 4.01 - Color Coded Red, Standard	No known significant effects or critical hazards.
	Buffer, pH 7.00 - Color Coded Yellow, Standard	No known significant effects or critical hazards.
	Buffer, pH 10.01 - Color Coded Blue, Standard	No known significant effects or critical hazards.

Section 4. First aid measures

Inhalation	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	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	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	No specific data. No specific data. No specific data.
Inhalation	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	No specific data. No specific data. No specific data.
Skin contact	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	No specific data. No specific data. No specific data.
Ingestion	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	No specific data. No specific data. No specific data.

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

Notes to physician	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	No specific treatment. No specific treatment. No specific treatment.

Section 4. First aid measures

Protection of first-aiders	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	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.
-----------------------------------	--	--

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	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	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	None known. None known. None known.

Specific hazards arising from the chemical	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst.
---	--	---

Hazardous thermal decomposition products	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides No specific data. No specific data.
---	--	--

Special protective actions for fire-fighters	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	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. 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. 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	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
---	---	--

Section 5. Firefighting measures

Buffer, pH 10.01 - Color Coded Blue, Standard

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

: Buffer, pH 4.01 - Color Coded Red, Standard

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.

Buffer, pH 7.00 - Color Coded Yellow, Standard

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.

Buffer, pH 10.01 - Color Coded Blue, Standard

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

For emergency responders

: Buffer, pH 4.01 - Color Coded Red, Standard

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".

Buffer, pH 7.00 - Color Coded Yellow, Standard

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".

Buffer, pH 10.01 - Color Coded Blue, Standard

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

: Buffer, pH 4.01 - Color Coded Red, Standard

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).

Buffer, pH 7.00 - Color Coded Yellow, Standard

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).

Buffer, pH 10.01 - Color Coded Blue, Standard

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

Section 6. Accidental release measures

Methods for cleaning up	: Buffer, pH 4.01 - Color Coded Red, Standard	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.
	Buffer, pH 7.00 - Color Coded Yellow, Standard	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.
	Buffer, pH 10.01 - Color Coded Blue, Standard	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	: Buffer, pH 4.01 - Color Coded Red, Standard	Put on appropriate personal protective equipment (see Section 8).
	Buffer, pH 7.00 - Color Coded Yellow, Standard	Put on appropriate personal protective equipment (see Section 8).
	Buffer, pH 10.01 - Color Coded Blue, Standard	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: Buffer, pH 4.01 - Color Coded Red, Standard	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.
	Buffer, pH 7.00 - Color Coded Yellow, Standard	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.
	Buffer, pH 10.01 - Color Coded Blue, Standard	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	: Buffer, pH 4.01 - Color Coded Red, Standard	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.
	Buffer, pH 7.00 - Color Coded Yellow, Standard	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from

Section 7. Handling and storage

Buffer, pH 10.01 - Color Coded Blue, Standard

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.

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

None.

- 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.

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	: Buffer, pH 4.01 - Color Coded Red, Standard	Liquid.
	: Buffer, pH 7.00 - Color Coded Yellow, Standard	Liquid.
	: Buffer, pH 10.01 - Color Coded Blue, Standard	Liquid.
Colour	: Buffer, pH 4.01 - Color Coded Red, Standard	Pink [Light]
	: Buffer, pH 7.00 - Color Coded Yellow, Standard	Yellow. [Light]
	: Buffer, pH 10.01 - Color Coded Blue, Standard	Blue. [Light]
Odour	: Buffer, pH 4.01 - Color Coded Red, Standard	Not available.
	: Buffer, pH 7.00 - Color Coded Yellow, Standard	Not available.
	: Buffer, pH 10.01 - Color Coded Blue, Standard	Not available.
Odour threshold	: Buffer, pH 4.01 - Color Coded Red, Standard	Not available.
	: Buffer, pH 7.00 - Color Coded Yellow, Standard	Not available.
	: Buffer, pH 10.01 - Color Coded Blue, Standard	Not available.
pH	: Buffer, pH 4.01 - Color Coded Red, Standard	4.01
	: Buffer, pH 7.00 - Color Coded Yellow, Standard	7
	: Buffer, pH 10.01 - Color Coded Blue, Standard	10.01
Melting point	: Buffer, pH 4.01 - Color Coded Red, Standard	0°C (32°F)
	: Buffer, pH 7.00 - Color Coded Yellow, Standard	0°C (32°F)
	: Buffer, pH 10.01 - Color Coded Blue, Standard	0°C (32°F)
Boiling point	: Buffer, pH 4.01 - Color Coded Red, Standard	100°C (212°F)
	: Buffer, pH 7.00 - Color Coded Yellow, Standard	100°C (212°F)
	: Buffer, pH 10.01 - Color Coded Blue, Standard	100°C (212°F)
Flash point	: Buffer, pH 4.01 - Color Coded Red, Standard	Not available.
	: Buffer, pH 7.00 - Color Coded Yellow, Standard	Not available.
	: Buffer, pH 10.01 - Color Coded Blue, Standard	Not available.
Evaporation rate	: Buffer, pH 4.01 - Color Coded Red, Standard	Not available.
	: Buffer, pH 7.00 - Color Coded Yellow, Standard	Not available.
	: Buffer, pH 10.01 - Color Coded Blue, Standard	Not available.
Flammability (solid, gas)	: Buffer, pH 4.01 - Color Coded Red, Standard	Not applicable.
	: Buffer, pH 7.00 - Color Coded Yellow, Standard	Not applicable.
	: Buffer, pH 10.01 - Color Coded Blue, Standard	Not applicable.

Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	Not available. Not available. Not available.
Vapour pressure	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	Not available. Not available. Not available.
Vapour density	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	Not available. Not available. Not available.
Relative density	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	1 1 1
Solubility	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	Not available. Not available. Not available.
Auto-ignition temperature	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	Not available. Not available. Not available.
Decomposition temperature	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	Not available. Not available. Not available.
Viscosity	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	Not available. Not available. Not available.

Section 10. Stability and reactivity

Reactivity	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	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	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	The product is stable. The product is stable. The product is stable.
Possibility of hazardous reactions	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	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	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	No specific data. No specific data. No specific data.
Incompatible materials	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	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	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	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

Not available.

Irritation/Corrosion

Not available.

Sensitisation

Not available.

Mutagenicity

Not available.

Carcinogenicity

Section 11. Toxicological information

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure	: Buffer, pH 4.01 - Color Coded Red, Standard	Not available.
	Buffer, pH 7.00 - Color Coded Yellow, Standard	Not available.
	Buffer, pH 10.01 - Color Coded Blue, Standard	Not available.

Potential acute health effects

Eye contact	: Buffer, pH 4.01 - Color Coded Red, Standard	No known significant effects or critical hazards.
	Buffer, pH 7.00 - Color Coded Yellow, Standard	No known significant effects or critical hazards.
	Buffer, pH 10.01 - Color Coded Blue, Standard	No known significant effects or critical hazards.
Inhalation	: Buffer, pH 4.01 - Color Coded Red, Standard	No known significant effects or critical hazards.
	Buffer, pH 7.00 - Color Coded Yellow, Standard	No known significant effects or critical hazards.
	Buffer, pH 10.01 - Color Coded Blue, Standard	No known significant effects or critical hazards.
Skin contact	: Buffer, pH 4.01 - Color Coded Red, Standard	No known significant effects or critical hazards.
	Buffer, pH 7.00 - Color Coded Yellow, Standard	No known significant effects or critical hazards.
	Buffer, pH 10.01 - Color Coded Blue, Standard	No known significant effects or critical hazards.
Ingestion	: Buffer, pH 4.01 - Color Coded Red, Standard	No known significant effects or critical hazards.
	Buffer, pH 7.00 - Color Coded Yellow, Standard	No known significant effects or critical hazards.
	Buffer, pH 10.01 - Color Coded Blue, Standard	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Buffer, pH 4.01 - Color Coded Red, Standard	No specific data.
	Buffer, pH 7.00 - Color Coded Yellow, Standard	No specific data.
	Buffer, pH 10.01 - Color Coded Blue, Standard	No specific data.

Section 11. Toxicological information

Inhalation	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	No specific data. No specific data. No specific data.
Skin contact	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	No specific data. No specific data. No specific data.
Ingestion	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	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

Not available.

General	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: Buffer, pH 4.01 - Color Coded Red, Standard Buffer, pH 7.00 - Color Coded Yellow, Standard Buffer, pH 10.01 - Color Coded Blue, Standard	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Section 11. Toxicological information

Developmental effects	:	Buffer, pH 4.01 - Color Coded Red, Standard	No known significant effects or critical hazards.
		Buffer, pH 7.00 - Color Coded Yellow, Standard	No known significant effects or critical hazards.
		Buffer, pH 10.01 - Color Coded Blue, Standard	No known significant effects or critical hazards.
Fertility effects	:	Buffer, pH 4.01 - Color Coded Red, Standard	No known significant effects or critical hazards.
		Buffer, pH 7.00 - Color Coded Yellow, Standard	No known significant effects or critical hazards.
		Buffer, pH 10.01 - Color Coded Blue, Standard	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

Regulatory information

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

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

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

Section 15. Regulatory information

Standard Uniform Schedule of Medicine and Poisons

6

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

Australia inventory (AICS) : All components are listed or exempted.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

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

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

International lists

National inventory

- Canada** : All components are listed or exempted.
China : All components are listed or exempted.
Europe : All components are listed or exempted.
Japan : **Japan inventory (ENCS):** All components are listed or exempted.
Japan inventory (ISHL): All components are listed or exempted.
Malaysia : Not determined.
New Zealand : All components are listed or exempted.
Philippines : All components are listed or exempted.
Republic of Korea : All components are listed or exempted.
Taiwan : All components are listed or exempted.
Turkey : Not determined.
United States : All components are listed or exempted.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 24/06/2016

Date of previous issue : 17/06/2014.

Version : 3

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.