

SAFETY DATA SHEET



pH buffer Package (4.01, 7.00, 10.01), Part Number 8010-0976

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : pH buffer Package (4.01, 7.00, 10.01), Part Number 8010-0976
Part No. (Kit) : 8010-0976
Part No. : pH buffer 4.01 NIST Standard 8010-0978-1
pH buffer 7.00 NIST Standard 8010-0980-1
pH buffer 10.01 NIST Standard Kit 8010-0979-1

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

Identified uses	
Analytical chemistry.	
pH buffer 4.01 NIST Standard	1 x 250 ml
pH buffer 7.00 NIST Standard	1 x 250 ml
pH buffer 10.01 NIST Standard Kit	1 x 250 ml

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : pH buffer 4.01 NIST Standard Mixture
pH buffer 7.00 NIST Standard Mixture
pH buffer 10.01 NIST Standard Kit Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

Ingredients of unknown toxicity : pH buffer 4.01 NIST Standard Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 1%
pH buffer 7.00 NIST Standard Not applicable.
pH buffer 10.01 NIST Standard Kit Not applicable.

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

SECTION 2: Hazards identification

Ingredients of unknown ecotoxicity	: pH buffer 4.01 NIST Standard	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1%
	: pH buffer 7.00 NIST Standard	Not applicable.
	: pH buffer 10.01 NIST Standard Kit	Not applicable.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Signal word	: pH buffer 4.01 NIST Standard	No signal word.
	: pH buffer 7.00 NIST Standard	No signal word.
	: pH buffer 10.01 NIST Standard Kit	No signal word.
Hazard statements	: pH buffer 4.01 NIST Standard	No known significant effects or critical hazards.
	: pH buffer 7.00 NIST Standard	No known significant effects or critical hazards.
	: pH buffer 10.01 NIST Standard Kit	No known significant effects or critical hazards.

Precautionary statements

Prevention	: pH buffer 4.01 NIST Standard	Not applicable.
	: pH buffer 7.00 NIST Standard	Not applicable.
	: pH buffer 10.01 NIST Standard Kit	Not applicable.
Response	: pH buffer 4.01 NIST Standard	Not applicable.
	: pH buffer 7.00 NIST Standard	Not applicable.
	: pH buffer 10.01 NIST Standard Kit	Not applicable.
Storage	: pH buffer 4.01 NIST Standard	Not applicable.
	: pH buffer 7.00 NIST Standard	Not applicable.
	: pH buffer 10.01 NIST Standard Kit	Not applicable.
Disposal	: pH buffer 4.01 NIST Standard	Not applicable.
	: pH buffer 7.00 NIST Standard	Not applicable.
	: pH buffer 10.01 NIST Standard Kit	Not applicable.
Hazardous ingredients	: No hazardous ingredient	
Supplemental label elements	: pH buffer 4.01 NIST Standard	Not applicable.
	: pH buffer 7.00 NIST Standard	Not applicable.
	: pH buffer 10.01 NIST Standard Kit	Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: pH buffer 4.01 NIST Standard	Not applicable.
	: pH buffer 7.00 NIST Standard	Not applicable.
	: pH buffer 10.01 NIST Standard Kit	Not applicable.

SECTION 2: Hazards identification**Special packaging requirements**

Tactile warning of danger	: pH buffer 4.01 NIST Standard	Not applicable.
	pH buffer 7.00 NIST Standard	Not applicable.
	pH buffer 10.01 NIST Standard Kit	Not applicable.

2.3 Other hazards

Other hazards which do not result in classification	: pH buffer 4.01 NIST Standard	None known.
	pH buffer 7.00 NIST Standard	None known.
	pH buffer 10.01 NIST Standard Kit	None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures	: pH buffer 4.01 NIST Standard	Mixture
	pH buffer 7.00 NIST Standard	Mixture
	pH buffer 10.01 NIST Standard Kit	Mixture

Product/ingredient name

No hazardous ingredient

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, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
 [2] Substance with a workplace exposure limit
 [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
 [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
 [5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures**4.1 Description of first aid measures**

Eye contact	: pH buffer 4.01 NIST 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.
	pH buffer 7.00 NIST 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.
	pH buffer 10.01 NIST Standard Kit	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	: pH buffer 4.01 NIST Standard	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	pH buffer 7.00 NIST Standard	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	pH buffer 10.01 NIST Standard Kit	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

SECTION 4: First aid measures

Skin contact	: pH buffer 4.01 NIST Standard	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	pH buffer 7.00 NIST Standard	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	pH buffer 10.01 NIST Standard Kit	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: pH buffer 4.01 NIST 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.
	pH buffer 7.00 NIST 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.
	pH buffer 10.01 NIST Standard Kit	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.
Protection of first-aiders	: pH buffer 4.01 NIST Standard	No action shall be taken involving any personal risk or without suitable training.
	pH buffer 7.00 NIST Standard	No action shall be taken involving any personal risk or without suitable training.
	pH buffer 10.01 NIST Standard Kit	No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact	: pH buffer 4.01 NIST Standard	No known significant effects or critical hazards.
	pH buffer 7.00 NIST Standard	No known significant effects or critical hazards.
	pH buffer 10.01 NIST Standard Kit	No known significant effects or critical hazards.
Inhalation	: pH buffer 4.01 NIST Standard	No known significant effects or critical hazards.
	pH buffer 7.00 NIST Standard	No known significant effects or critical hazards.
	pH buffer 10.01 NIST Standard Kit	No known significant effects or critical hazards.
Skin contact	: pH buffer 4.01 NIST Standard	No known significant effects or critical hazards.
	pH buffer 7.00 NIST Standard	No known significant effects or critical hazards.
	pH buffer 10.01 NIST Standard Kit	No known significant effects or critical hazards.
Ingestion	: pH buffer 4.01 NIST Standard	No known significant effects or critical hazards.
	pH buffer 7.00 NIST Standard	No known significant effects or critical hazards.
	pH buffer 10.01 NIST Standard Kit	No known significant effects or critical hazards.

Over-exposure signs/symptoms

SECTION 4: First aid measures

Eye contact	: pH buffer 4.01 NIST Standard	No specific data.
	: pH buffer 7.00 NIST Standard	No specific data.
	: pH buffer 10.01 NIST Standard Kit	No specific data.
Inhalation	: pH buffer 4.01 NIST Standard	No specific data.
	: pH buffer 7.00 NIST Standard	No specific data.
	: pH buffer 10.01 NIST Standard Kit	No specific data.
Skin contact	: pH buffer 4.01 NIST Standard	No specific data.
	: pH buffer 7.00 NIST Standard	No specific data.
	: pH buffer 10.01 NIST Standard Kit	No specific data.
Ingestion	: pH buffer 4.01 NIST Standard	No specific data.
	: pH buffer 7.00 NIST Standard	No specific data.
	: pH buffer 10.01 NIST Standard Kit	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: pH buffer 4.01 NIST Standard	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	: pH buffer 7.00 NIST Standard	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	: pH buffer 10.01 NIST Standard Kit	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: pH buffer 4.01 NIST Standard	No specific treatment.
	: pH buffer 7.00 NIST Standard	No specific treatment.
	: pH buffer 10.01 NIST Standard Kit	No specific treatment.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media	: pH buffer 4.01 NIST Standard	Use an extinguishing agent suitable for the surrounding fire.
	: pH buffer 7.00 NIST Standard	Use an extinguishing agent suitable for the surrounding fire.
	: pH buffer 10.01 NIST Standard Kit	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: pH buffer 4.01 NIST Standard	None known.
	: pH buffer 7.00 NIST Standard	None known.
	: pH buffer 10.01 NIST Standard Kit	None known.

5.2 Special hazards arising from the substance or mixture

SECTION 5: Firefighting measures

Hazards from the substance or mixture	: pH buffer 4.01 NIST Standard pH buffer 7.00 NIST Standard pH buffer 10.01 NIST Standard Kit	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 combustion products	: pH buffer 4.01 NIST Standard pH buffer 7.00 NIST Standard pH buffer 10.01 NIST Standard Kit	Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides No specific data. No specific data.
5.3 Advice for firefighters		
Special precautions for fire-fighters	: pH buffer 4.01 NIST Standard pH buffer 7.00 NIST Standard pH buffer 10.01 NIST Standard Kit	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	: pH buffer 4.01 NIST Standard pH buffer 7.00 NIST Standard pH buffer 10.01 NIST Standard Kit	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: pH buffer 4.01 NIST Standard pH buffer 7.00 NIST Standard pH buffer 10.01 NIST Standard Kit	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. 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. 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.
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SECTION 6: Accidental release measures

For emergency responders	: pH buffer 4.01 NIST 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".
	pH buffer 7.00 NIST 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".
	pH buffer 10.01 NIST Standard Kit	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".
6.2 Environmental precautions	: pH buffer 4.01 NIST 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).
	pH buffer 7.00 NIST 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).
	pH buffer 10.01 NIST Standard Kit	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).
6.3 Methods and material for containment and cleaning up		
Methods for cleaning up	: pH buffer 4.01 NIST 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.
	pH buffer 7.00 NIST 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.
	pH buffer 10.01 NIST Standard Kit	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.
6.4 Reference to other sections	: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.	

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures	: pH buffer 4.01 NIST Standard	Put on appropriate personal protective equipment (see Section 8).
	pH buffer 7.00 NIST Standard	Put on appropriate personal protective equipment (see Section 8).
	pH buffer 10.01 NIST Standard Kit	Put on appropriate personal protective equipment (see Section 8).

SECTION 7: Handling and storage

Advice on general occupational hygiene	: pH buffer 4.01 NIST 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.
	pH buffer 7.00 NIST 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.
	pH buffer 10.01 NIST Standard Kit	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.
7.2 Conditions for safe storage, including any incompatibilities	: pH buffer 4.01 NIST 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.
	pH buffer 7.00 NIST 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.
	pH buffer 10.01 NIST Standard Kit	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.
7.3 Specific end use(s)		
Recommendations	: pH buffer 4.01 NIST Standard	Industrial applications, Professional applications.
	pH buffer 7.00 NIST Standard	Industrial applications, Professional applications.
	pH buffer 10.01 NIST Standard Kit	Industrial applications, Professional applications.
Industrial sector specific solutions	: pH buffer 4.01 NIST Standard	Not applicable.
	pH buffer 7.00 NIST Standard	Not applicable.
	pH buffer 10.01 NIST Standard Kit	Not applicable.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Occupational exposure limits**

No exposure limit value known.

Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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.

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.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****Appearance**

Physical state	:	pH buffer 4.01 NIST Standard	Liquid.
		pH buffer 7.00 NIST Standard	Liquid.
		pH buffer 10.01 NIST Standard Kit	Liquid.
Colour	:	pH buffer 4.01 NIST Standard	Pink [Light]
		pH buffer 7.00 NIST Standard	Yellow. [Light]
		pH buffer 10.01 NIST Standard Kit	Blue. [Light]
Odour	:	pH buffer 4.01 NIST Standard	Not available.
		pH buffer 7.00 NIST Standard	Not available.
		pH buffer 10.01 NIST Standard Kit	Not available.
Odour threshold	:	pH buffer 4.01 NIST Standard	Not available.
		pH buffer 7.00 NIST Standard	Not available.
		pH buffer 10.01 NIST Standard Kit	Not available.
pH	:	pH buffer 4.01 NIST Standard	4.01
		pH buffer 7.00 NIST Standard	7
		pH buffer 10.01 NIST Standard Kit	10.01
Melting point/freezing point	:	pH buffer 4.01 NIST Standard	0°C
		pH buffer 7.00 NIST Standard	0°C
		pH buffer 10.01 NIST Standard Kit	0°C
Initial boiling point and boiling range	:	pH buffer 4.01 NIST Standard	100°C
		pH buffer 7.00 NIST Standard	100°C
		pH buffer 10.01 NIST Standard Kit	100°C
Flash point	:	pH buffer 4.01 NIST Standard	Not available.
		pH buffer 7.00 NIST Standard	Not available.
		pH buffer 10.01 NIST Standard Kit	Not available.
Evaporation rate	:	pH buffer 4.01 NIST Standard	Not available.
		pH buffer 7.00 NIST Standard	Not available.
		pH buffer 10.01 NIST Standard Kit	Not available.

SECTION 9: Physical and chemical properties

Flammability (solid, gas)	: pH buffer 4.01 NIST Standard	Not applicable.
	pH buffer 7.00 NIST Standard	Not applicable.
	pH buffer 10.01 NIST Standard Kit	Not applicable.
Upper/lower flammability or explosive limits	: pH buffer 4.01 NIST Standard	Not available.
	pH buffer 7.00 NIST Standard	Not available.
	pH buffer 10.01 NIST Standard Kit	Not available.
Vapour pressure	: pH buffer 4.01 NIST Standard	Not available.
	pH buffer 7.00 NIST Standard	Not available.
	pH buffer 10.01 NIST Standard Kit	Not available.
Vapour density	: pH buffer 4.01 NIST Standard	Not available.
	pH buffer 7.00 NIST Standard	Not available.
	pH buffer 10.01 NIST Standard Kit	Not available.
Relative density	: pH buffer 4.01 NIST Standard	1
	pH buffer 7.00 NIST Standard	1
	pH buffer 10.01 NIST Standard Kit	1
Solubility(ies)	: pH buffer 4.01 NIST Standard	Easily soluble in the following materials: cold water and hot water.
	pH buffer 7.00 NIST Standard	Easily soluble in the following materials: cold water and hot water.
	pH buffer 10.01 NIST Standard Kit	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: pH buffer 4.01 NIST Standard	Not available.
	pH buffer 7.00 NIST Standard	Not available.
	pH buffer 10.01 NIST Standard Kit	Not available.
Auto-ignition temperature	: pH buffer 4.01 NIST Standard	Not available.
	pH buffer 7.00 NIST Standard	Not available.
	pH buffer 10.01 NIST Standard Kit	Not available.
Decomposition temperature	: pH buffer 4.01 NIST Standard	Not available.
	pH buffer 7.00 NIST Standard	Not available.
	pH buffer 10.01 NIST Standard Kit	Not available.
Viscosity	: pH buffer 4.01 NIST Standard	Not available.
	pH buffer 7.00 NIST Standard	Not available.
	pH buffer 10.01 NIST Standard Kit	Not available.

SECTION 9: Physical and chemical properties

Explosive properties	: pH buffer 4.01 NIST Standard	Not available.
	pH buffer 7.00 NIST Standard	Not available.
	pH buffer 10.01 NIST Standard Kit	Not available.
Oxidising properties	: pH buffer 4.01 NIST Standard	Not available.
	pH buffer 7.00 NIST Standard	Not available.
	pH buffer 10.01 NIST Standard Kit	Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: pH buffer 4.01 NIST Standard	No specific test data related to reactivity available for this product or its ingredients.
	pH buffer 7.00 NIST Standard	No specific test data related to reactivity available for this product or its ingredients.
	pH buffer 10.01 NIST Standard Kit	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: pH buffer 4.01 NIST Standard	The product is stable.
	pH buffer 7.00 NIST Standard	The product is stable.
	pH buffer 10.01 NIST Standard Kit	The product is stable.
10.3 Possibility of hazardous reactions	: pH buffer 4.01 NIST Standard	Under normal conditions of storage and use, hazardous reactions will not occur.
	pH buffer 7.00 NIST Standard	Under normal conditions of storage and use, hazardous reactions will not occur.
	pH buffer 10.01 NIST Standard Kit	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: pH buffer 4.01 NIST Standard	No specific data.
	pH buffer 7.00 NIST Standard	No specific data.
	pH buffer 10.01 NIST Standard Kit	No specific data.
10.5 Incompatible materials	: pH buffer 4.01 NIST Standard	May react or be incompatible with oxidising materials.
	pH buffer 7.00 NIST Standard	May react or be incompatible with oxidising materials.
	pH buffer 10.01 NIST Standard Kit	May react or be incompatible with oxidising materials.
10.6 Hazardous decomposition products	: pH buffer 4.01 NIST Standard	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	pH buffer 7.00 NIST Standard	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	pH buffer 10.01 NIST Standard Kit	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

Not available.

Acute toxicity estimates

Not available.

Irritation/Corrosion**Conclusion/Summary** : Not available.**Sensitiser****Conclusion/Summary** : Not available.**Chronic toxicity / Carcinogenicity / Mutagenicity / Teratogenicity / Reproductive toxicity**

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	: pH buffer 4.01 NIST Standard	Not available.
	pH buffer 7.00 NIST Standard	Not available.
	pH buffer 10.01 NIST Standard Kit	Not available.

Potential acute health effects

Inhalation	: pH buffer 4.01 NIST Standard	No known significant effects or critical hazards.
	pH buffer 7.00 NIST Standard	No known significant effects or critical hazards.
	pH buffer 10.01 NIST Standard Kit	No known significant effects or critical hazards.
Ingestion	: pH buffer 4.01 NIST Standard	No known significant effects or critical hazards.
	pH buffer 7.00 NIST Standard	No known significant effects or critical hazards.
	pH buffer 10.01 NIST Standard Kit	No known significant effects or critical hazards.
Skin contact	: pH buffer 4.01 NIST Standard	No known significant effects or critical hazards.
	pH buffer 7.00 NIST Standard	No known significant effects or critical hazards.
	pH buffer 10.01 NIST Standard Kit	No known significant effects or critical hazards.
Eye contact	: pH buffer 4.01 NIST Standard	No known significant effects or critical hazards.
	pH buffer 7.00 NIST Standard	No known significant effects or critical hazards.
	pH buffer 10.01 NIST Standard Kit	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: pH buffer 4.01 NIST Standard	No specific data.
	pH buffer 7.00 NIST Standard	No specific data.
	pH buffer 10.01 NIST Standard Kit	No specific data.

SECTION 11: Toxicological information

Ingestion	: pH buffer 4.01 NIST Standard	No specific data.
	: pH buffer 7.00 NIST Standard	No specific data.
	: pH buffer 10.01 NIST Standard Kit	No specific data.
Skin contact	: pH buffer 4.01 NIST Standard	No specific data.
	: pH buffer 7.00 NIST Standard	No specific data.
	: pH buffer 10.01 NIST Standard Kit	No specific data.
Eye contact	: pH buffer 4.01 NIST Standard	No specific data.
	: pH buffer 7.00 NIST Standard	No specific data.
	: pH buffer 10.01 NIST Standard Kit	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	: pH buffer 4.01 NIST Standard	No known significant effects or critical hazards.
	: pH buffer 7.00 NIST Standard	No known significant effects or critical hazards.
	: pH buffer 10.01 NIST Standard Kit	No known significant effects or critical hazards.
Carcinogenicity	: pH buffer 4.01 NIST Standard	No known significant effects or critical hazards.
	: pH buffer 7.00 NIST Standard	No known significant effects or critical hazards.
	: pH buffer 10.01 NIST Standard Kit	No known significant effects or critical hazards.
Mutagenicity	: pH buffer 4.01 NIST Standard	No known significant effects or critical hazards.
	: pH buffer 7.00 NIST Standard	No known significant effects or critical hazards.
	: pH buffer 10.01 NIST Standard Kit	No known significant effects or critical hazards.
Teratogenicity	: pH buffer 4.01 NIST Standard	No known significant effects or critical hazards.
	: pH buffer 7.00 NIST Standard	No known significant effects or critical hazards.
	: pH buffer 10.01 NIST Standard Kit	No known significant effects or critical hazards.
Developmental effects	: pH buffer 4.01 NIST Standard	No known significant effects or critical hazards.
	: pH buffer 7.00 NIST Standard	No known significant effects or critical hazards.
	: pH buffer 10.01 NIST Standard Kit	No known significant effects or critical hazards.

SECTION 11: Toxicological information

Fertility effects	: pH buffer 4.01 NIST Standard	No known significant effects or critical hazards.
	: pH buffer 7.00 NIST Standard	No known significant effects or critical hazards.
	: pH buffer 10.01 NIST Standard Kit	No known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : 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

ADR/RID / IMDG / IATA : Not regulated.

14.6 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.

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

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	pH buffer 4.01 NIST Standard	Not applicable.
	pH buffer 7.00 NIST Standard	Not applicable.
	pH buffer 10.01 NIST Standard Kit	Not applicable.

Other EU regulations

Europe inventory : All components are listed or exempted.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

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

Australia	: All components are listed or exempted.
Canada	: All components are listed or exempted.
China	: 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.

SECTION 15: Regulatory information

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.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Not classified.	

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

Date of previous issue : No previous validation.

Version : 1

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