

# SAFETY DATA SHEET



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

## Section 1. Identification

### 1.1 Product identifier

**Product name** : 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  
**Validation date** : 6/24/2016

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

**Material uses** : 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

### 1.3 Details of the supplier of the safety data sheet

**Supplier/Manufacturer** : Agilent Technologies, Inc.  
 5301 Stevens Creek Blvd  
 Santa Clara, CA 95051, USA  
 800-227-9770

### 1.4 Emergency telephone number

**In case of emergency** : CHEMTREC®: 1-800-424-9300

## Section 2. Hazards identification

### 2.1 Classification of the substance or mixture

<b>OSHA/HCS status</b> : Buffer, pH 4.01 - Color Coded Red, Standard	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Buffer, pH 7.00 - Color Coded Yellow, Standard	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Buffer, pH 10.01 - Color Coded Blue, Standard	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

### Classification of the substance or mixture

Not classified.

## Section 2. Hazards identification

<b>Ingredients of unknown toxicity</b>	: 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.

### 2.2 GHS label elements

<b>Signal word</b>	: 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.
<b>Hazard statements</b>	: 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.

### Precautionary statements

<b>Prevention</b>	: 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.

<b>Response</b>	: 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.

<b>Storage</b>	: 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.

<b>Disposal</b>	: 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.

<b>Supplemental label elements</b>	: Buffer, pH 4.01 - Color Coded Red, Standard	None known.
	Buffer, pH 7.00 - Color Coded Yellow, Standard	None known.
	Buffer, pH 10.01 - Color Coded Blue, Standard	None known.

### 2.3 Other hazards

## Section 2. Hazards identification

<b>Hazards not otherwise classified</b>	:	Buffer, pH 4.01 - Color Coded Red, Standard	None known.
		Buffer, pH 7.00 - Color Coded Yellow, Standard	None known.
		Buffer, pH 10.01 - Color Coded Blue, Standard	None known.

## Section 3. Composition/information on ingredients

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

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**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

### 4.1 Description of necessary first aid measures

<b>Eye contact</b>	:	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.
<b>Inhalation</b>	:	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.
<b>Skin contact</b>	:	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.

## Section 4. First aid measures

<b>Ingestion</b>	: 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.

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

#### Potential acute health effects

<b>Eye contact</b>	: 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.
<b>Inhalation</b>	: 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.
<b>Skin contact</b>	: 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.
<b>Ingestion</b>	: 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.

#### Over-exposure signs/symptoms

<b>Eye contact</b>	: 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 4. First aid measures

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

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

<b>Notes to physician</b>	: Buffer, pH 4.01 - Color Coded Red, Standard	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Buffer, pH 7.00 - Color Coded Yellow, Standard	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Buffer, pH 10.01 - Color Coded Blue, Standard	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	: Buffer, pH 4.01 - Color Coded Red, Standard	No specific treatment.
	Buffer, pH 7.00 - Color Coded Yellow, Standard	No specific treatment.
	Buffer, pH 10.01 - Color Coded Blue, Standard	No specific treatment.
<b>Protection of first-aiders</b>	: Buffer, pH 4.01 - Color Coded Red, Standard	No action shall be taken involving any personal risk or without suitable training.
	Buffer, pH 7.00 - Color Coded Yellow, Standard	No action shall be taken involving any personal risk or without suitable training.
	Buffer, pH 10.01 - Color Coded Blue, Standard	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: Buffer, pH 4.01 - Color Coded Red, Standard	Use an extinguishing agent suitable for the surrounding fire.
	Buffer, pH 7.00 - Color Coded Yellow, Standard	Use an extinguishing agent suitable for the surrounding fire.
	Buffer, pH 10.01 - Color Coded Blue, Standard	Use an extinguishing agent suitable for the surrounding fire.

## Section 5. Fire-fighting measures

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

### 5.2 Special hazards arising from the substance or mixture

**Specific hazards arising from the chemical** : Buffer, pH 4.01 - Color Coded Red, Standard In a fire or if heated, a pressure increase will occur and the container may burst.  
Buffer, pH 7.00 - Color Coded Yellow, Standard In a fire or if heated, a pressure increase will occur and the container may burst.  
Buffer, pH 10.01 - Color Coded Blue, Standard 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 Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
metal oxide/oxides  
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.

### 5.3 Advice for firefighters

**Special protective actions for fire-fighters** : Buffer, pH 4.01 - Color Coded Red, 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.  
Buffer, pH 7.00 - Color Coded Yellow, 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.  
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.

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

### 6.1 Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	: 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 spilled 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 spilled 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 spilled material. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	: Buffer, pH 4.01 - Color Coded Red, Standard	If specialized 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 specialized 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 specialized 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>6.2 Environmental precautions</b>	: Buffer, pH 4.01 - Color Coded Red, Standard	Avoid dispersal of spilled 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 spilled 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 spilled 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 materials for containment and cleaning up

<b>Methods for cleaning up</b>	: 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.

## Section 6. Accidental release measures

Buffer, pH 10.01 - Color Coded  
Blue, Standard

Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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

## Section 7. Handling and storage

### 7.1 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.

### 7.2 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 unlabeled 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 incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been



## Section 7. Handling and storage

Buffer, pH 10.01 - Color Coded Blue, Standard

opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled 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 unlabeled containers. Use appropriate containment to avoid environmental contamination.

### 7.3 Specific end use(s)

- Recommendations**
- : Buffer, pH 4.01 - Color Coded Red, Standard Industrial applications, Professional applications.
  - Buffer, pH 7.00 - Color Coded Yellow, Standard Industrial applications, Professional applications.
  - Buffer, pH 10.01 - Color Coded Blue, Standard Industrial applications, Professional applications.
- Industrial sector specific solutions**
- : 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 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
None.	

### 8.2 Exposure controls

- 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.

## Section 8. Exposure controls/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.
- 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

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : Buffer, pH 4.01 - Color Coded Red, Liquid.  
Standard  
Buffer, pH 7.00 - Color Coded Yellow, Standard Liquid.  
Buffer, pH 10.01 - Color Coded Blue, Standard Liquid.
- Color** : Buffer, pH 4.01 - Color Coded Red, Pink [Light] Standard  
Buffer, pH 7.00 - Color Coded Yellow, Standard [Light]  
Buffer, pH 10.01 - Color Coded Blue, Standard [Light]
- Odor** : Buffer, pH 4.01 - Color Coded Red, Not available. Standard  
Buffer, pH 7.00 - Color Coded Yellow, Standard Not available.  
Buffer, pH 10.01 - Color Coded Blue, Standard Not available.
- Odor threshold** : Buffer, pH 4.01 - Color Coded Red, Not available. Standard  
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, 4.01 Standard  
Buffer, pH 7.00 - Color Coded Yellow, Standard 7  
Buffer, pH 10.01 - Color Coded Blue, Standard 10.01

## Section 9. Physical and chemical properties

<b>Melting point</b>	: Buffer, pH 4.01 - Color Coded Red, 0°C (32°F) Standard Buffer, pH 7.00 - Color Coded Yellow, Standard 0°C (32°F) Buffer, pH 10.01 - Color Coded Blue, Standard 0°C (32°F)
<b>Boiling point</b>	: 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)
<b>Flash point</b>	: 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.
<b>Evaporation rate</b>	: 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.
<b>Flammability (solid, gas)</b>	: 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.
<b>Lower and upper explosive (flammable) limits</b>	: 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.
<b>Vapor pressure</b>	: 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.
<b>Vapor density</b>	: 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.
<b>Relative density</b>	: Buffer, pH 4.01 - Color Coded Red, Standard 1 Buffer, pH 7.00 - Color Coded Yellow, Standard 1 Buffer, pH 10.01 - Color Coded Blue, Standard 1

## Section 9. Physical and chemical properties

<b>Solubility</b>	: 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.
<b>Partition coefficient: n-octanol/water</b>	: 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.
<b>Auto-ignition temperature</b>	: 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.
<b>Decomposition temperature</b>	: 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.
<b>Viscosity</b>	: 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

<b>10.1 Reactivity</b>	: 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.
<b>10.2 Chemical stability</b>	: 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.
<b>10.3 Possibility of hazardous reactions</b>	: 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.

## Section 10. Stability and reactivity

<b>10.4 Conditions to avoid</b>	: Buffer, pH 4.01 - Color Coded Red, No specific data. Standard Buffer, pH 7.00 - Color Coded Yellow, Standard No specific data. Buffer, pH 10.01 - Color Coded Blue, Standard No specific data.
<b>10.5 Incompatible materials</b>	: Buffer, pH 4.01 - Color Coded Red, Standard May react or be incompatible with oxidizing materials. Buffer, pH 7.00 - Color Coded Yellow, Standard May react or be incompatible with oxidizing materials. Buffer, pH 10.01 - Color Coded Blue, Standard May react or be incompatible with oxidizing materials.
<b>10.6 Hazardous decomposition products</b>	: Buffer, pH 4.01 - Color Coded Red, Standard Under normal conditions of storage and use, hazardous decomposition products should not be produced. Buffer, pH 7.00 - Color Coded Yellow, Standard Under normal conditions of storage and use, hazardous decomposition products should not be produced. Buffer, pH 10.01 - Color Coded Blue, Standard 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.

#### Irritation/Corrosion

Not available.

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity

Not available.

#### Teratogenicity

Not available.

#### Specific target organ toxicity (single exposure)

Not available.

#### Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

Not available.

## Section 11. Toxicological information

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

### Potential acute health effects

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

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

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

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

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

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

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

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

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

## Section 11. Toxicological information

### Delayed and immediate effects and also 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

<b>General</b>	: 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.
<b>Carcinogenicity</b>	: 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.
<b>Mutagenicity</b>	: 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.
<b>Teratogenicity</b>	: 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.
<b>Developmental effects</b>	: 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.
<b>Fertility effects</b>	: 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

### 12.1 Toxicity

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<sub>oc</sub>)** : Not available.

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

## Section 13. Disposal considerations

### 13.1 Waste treatment methods

**Disposal methods** : The generation of waste should be avoided or minimized 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## Section 14. Transport information

### Regulatory information

**DOT / IMDG / IATA** : Not regulated.

## Section 15. Regulatory information

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

**U.S. Federal regulations** : **United States inventory (TSCA 8b)**: All components are listed or exempted.  
**Clean Water Act (CWA) 311**: Disodium hydrogenorthophosphate



## Section 15. Regulatory information

**Clean Air Act Section 112** : Not listed

**(b) Hazardous Air Pollutants (HAPs)**

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : Not applicable.

#### Composition/information on ingredients

No products were found.

### State regulations

**Massachusetts** : None of the components are listed.

**New York** : None of the components are listed.

**New Jersey** : None of the components are listed.

**Pennsylvania** : None of the components are listed.

### California Prop. 65

No products were found.

**Canada inventory** : All components are listed or exempted.

### International regulations

**International lists** :

- Australia inventory (AICS)**: All components are listed or exempted.
- China inventory (IECSC)**: All components are listed or exempted.
- Japan inventory (ENCS)**: All components are listed or exempted.
- Japan inventory (ISHL)**: All components are listed or exempted.
- Korea inventory**: All components are listed or exempted.
- Malaysia Inventory (EHS Register)**: Not determined.
- New Zealand Inventory of Chemicals (NZIoC)**: All components are listed or exempted.
- Philippines inventory (PICCS)**: All components are listed or exempted.
- Taiwan Chemical Substances Inventory (TCSI)**: All components are listed or exempted.
- Turkey inventory**: Not determined.

**Chemical Weapons Convention List Schedule I Chemicals** : Not listed

**Chemical Weapons Convention List Schedule II Chemicals** : Not listed

**Chemical Weapons Convention List Schedule III Chemicals** : Not listed

## Section 16. Other information

### History

**Date of issue** : 06/24/2016  
**Date of previous issue** : 06/17/2014.  
**Version** : 3

✔ Indicates information that has changed from previously issued version.

### Notice to reader

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