

# SAFETY DATA SHEET

Inorganic Anion Analysis Kit

## Section 1. Identification

### 1.1 Product identifier

**Product name** : Inorganic Anion Analysis Kit  
**Part No. (Chemical Kit)** : 5063-6511, 5063-6511-P  
**Part No.** : Ultra Pure Water for CE 5062-8578  
 Inorganic Anion Buffer Solution 8500-6797  
 Sodium Hydroxide Solution 1.0N for HPCE 5062-8576  
 Sodium Hydroxide Solution 0.1N for HPCE 5062-8575  
 Inorganic Anion Test Mixture 5062-8524  
**Validation date** : 8/1/2017

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

**Material uses** : Analytical chemistry.  
 Ultra Pure Water for CE 500 ml  
 Inorganic Anion Buffer Solution 250 ml  
 Sodium Hydroxide Solution 1.0N for HPCE 250 ml  
 Sodium Hydroxide Solution 0.1N for HPCE 250 ml  
 Inorganic Anion Test Mixture 10 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>	: Ultra Pure Water for CE	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.
	Inorganic Anion Buffer Solution	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.
	Sodium Hydroxide Solution 1.0N for HPCE	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	Sodium Hydroxide Solution 0.1N for HPCE	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	Inorganic Anion Test Mixture	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

### Classification of the substance or mixture

## Section 2. Hazards identification

### Sodium Hydroxide Solution 1.

#### 0N for HPCE

H290	CORROSIVE TO METALS - Category 1
H315	SKIN IRRITATION - Category 2
H318	SERIOUS EYE DAMAGE - Category 1
H335	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

### Sodium Hydroxide Solution 0.

#### 1N for HPCE

H320	EYE IRRITATION - Category 2B
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### Inorganic Anion Test Mixture

H361	TOXIC TO REPRODUCTION (Unborn child) - Category 2	
<b>Ingredients of unknown toxicity</b>	: Sodium Hydroxide Solution 1.0N for HPCE	Percentage of the mixture consisting of ingredient (s) of unknown inhalation toxicity: 1 - 10%

## 2.2 GHS label elements

### Hazard pictograms

: Sodium Hydroxide Solution 1.0N for HPCE



Inorganic Anion Test Mixture



### Signal word

: Ultra Pure Water for CE	No signal word.
Inorganic Anion Buffer Solution	No signal word.
Sodium Hydroxide Solution 1.0N for HPCE	Danger
Sodium Hydroxide Solution 0.1N for HPCE	Warning
Inorganic Anion Test Mixture	Warning

### Hazard statements

: Ultra Pure Water for CE	No known significant effects or critical hazards.
Inorganic Anion Buffer Solution	No known significant effects or critical hazards.
Sodium Hydroxide Solution 1.0N for HPCE	H290 - May be corrosive to metals.

H318 - Causes serious eye damage.  
H315 - Causes skin irritation.  
H335 - May cause respiratory irritation.  
H320 - Causes eye irritation.

Sodium Hydroxide Solution 0.1N for HPCE

H361 - Suspected of damaging the unborn child.

Inorganic Anion Test Mixture

## Precautionary statements

### Prevention

: Ultra Pure Water for CE	Not applicable.
Inorganic Anion Buffer Solution	Not applicable.
Sodium Hydroxide Solution 1.0N for HPCE	P280 - Wear protective gloves. Wear eye or face protection. P234 - Keep only in original container. P271 - Use only outdoors or in a well-ventilated area. P261 - Avoid breathing vapor. P264 - Wash hands thoroughly after handling.
Sodium Hydroxide Solution 0.1N for HPCE	P264 - Wash hands thoroughly after handling.

## Section 2. Hazards identification

	Inorganic Anion Test Mixture	P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
<b>Response</b>	: Ultra Pure Water for CE Inorganic Anion Buffer Solution Sodium Hydroxide Solution 1.0N for HPCE	Not applicable. Not applicable. P390 - Absorb spillage to prevent material damage.
	Sodium Hydroxide Solution 0.1N for HPCE	P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. P302 + P352 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. P332 + P313 - If skin irritation occurs: Get medical attention. P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
<b>Storage</b>	: Inorganic Anion Test Mixture Ultra Pure Water for CE Inorganic Anion Buffer Solution Sodium Hydroxide Solution 1.0N for HPCE	P308 + P313 - IF exposed or concerned: Get medical attention. Not applicable. Not applicable. P405 - Store locked up.
	Sodium Hydroxide Solution 0.1N for HPCE	P406 - Store in a corrosion resistant container with a resistant inner liner. Not applicable.
<b>Disposal</b>	: Inorganic Anion Test Mixture Ultra Pure Water for CE Inorganic Anion Buffer Solution Sodium Hydroxide Solution 1.0N for HPCE	P405 - Store locked up. Not applicable. Not applicable. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Sodium Hydroxide Solution 0.1N for HPCE	Not applicable.
	Inorganic Anion Test Mixture	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Supplemental label elements</b>	: Ultra Pure Water for CE Inorganic Anion Buffer Solution Sodium Hydroxide Solution 1.0N for HPCE Sodium Hydroxide Solution 0.1N for HPCE Inorganic Anion Test Mixture	None known. None known. Do not taste or swallow. Wash thoroughly after handling. None known. None known.

### 2.3 Other hazards

## Section 2. Hazards identification

<b>Hazards not otherwise classified</b>	: Ultra Pure Water for CE	None known.
	Inorganic Anion Buffer Solution	None known.
	Sodium Hydroxide Solution 1.0N for HPCE	Causes digestive tract burns.
	Sodium Hydroxide Solution 0.1N for HPCE	None known.
	Inorganic Anion Test Mixture	None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Ultra Pure Water for CE	Substance
	Inorganic Anion Buffer Solution	Mixture
	Sodium Hydroxide Solution 1.0N for HPCE	Mixture
	Sodium Hydroxide Solution 0.1N for HPCE	Mixture
	Inorganic Anion Test Mixture	Mixture

Ingredient name	%	CAS number
<b>Ultra Pure Water for CE</b> Water	100	7732-18-5
<b>Sodium Hydroxide Solution 1.0N for HPCE</b> Sodium hydroxide	≤5	1310-73-2
<b>Sodium Hydroxide Solution 0.1N for HPCE</b> Sodium hydroxide	≤1	1310-73-2
<b>Inorganic Anion Test Mixture</b> Sodium bromide	≤0.3	7647-15-6

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

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

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

## Section 4. First aid measures

### 4.1 Description of necessary first aid measures

<b>Eye contact</b>	: Ultra Pure Water for CE	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.
	Inorganic Anion Buffer Solution	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.
	Sodium Hydroxide Solution 1.0N for HPCE	Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
	Sodium Hydroxide Solution 0.1N for HPCE	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses.

## Section 4. First aid measures

	Inorganic Anion Test Mixture	Continue to rinse for at least 10 minutes. If irritation persists, get medical attention. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
<b>Inhalation</b>	: Ultra Pure Water for CE	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Inorganic Anion Buffer Solution	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Sodium Hydroxide Solution 1.0N for HPCE	Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	Sodium Hydroxide Solution 0.1N for HPCE	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	Inorganic Anion Test Mixture	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
<b>Skin contact</b>	: Ultra Pure Water for CE	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Inorganic Anion Buffer Solution	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Sodium Hydroxide Solution 1.0N for HPCE	Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with

## Section 4. First aid measures

plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Sodium Hydroxide Solution 0.1N  
for HPCE

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Inorganic Anion Test Mixture

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

### Ingestion

: Ultra Pure Water for CE

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.

Inorganic Anion Buffer Solution

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.

Sodium Hydroxide Solution 1.0N  
for HPCE

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

Sodium Hydroxide Solution 0.1N  
for HPCE

## Section 4. First aid measures

### Inorganic Anion Test Mixture

give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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

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

#### Potential acute health effects

<b>Eye contact</b>	: Ultra Pure Water for CE Inorganic Anion Buffer Solution Sodium Hydroxide Solution 1.0N for HPCE Sodium Hydroxide Solution 0.1N for HPCE Inorganic Anion Test Mixture	No known significant effects or critical hazards. No known significant effects or critical hazards. Causes serious eye damage.  Causes eye irritation.
<b>Inhalation</b>	: Ultra Pure Water for CE Inorganic Anion Buffer Solution Sodium Hydroxide Solution 1.0N for HPCE Sodium Hydroxide Solution 0.1N for HPCE Inorganic Anion Test Mixture	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. May cause respiratory irritation.  No known significant effects or critical hazards.
<b>Skin contact</b>	: Ultra Pure Water for CE Inorganic Anion Buffer Solution Sodium Hydroxide Solution 1.0N for HPCE Sodium Hydroxide Solution 0.1N for HPCE Inorganic Anion Test Mixture	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes skin irritation.  No known significant effects or critical hazards.
<b>Ingestion</b>	: Ultra Pure Water for CE Inorganic Anion Buffer Solution Sodium Hydroxide Solution 1.0N for HPCE Sodium Hydroxide Solution 0.1N for HPCE Inorganic Anion Test Mixture	No known significant effects or critical hazards. No known significant effects or critical hazards. Corrosive to the digestive tract. Causes burns.  No known significant effects or critical hazards.  No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

## Section 4. First aid measures

<b>Eye contact</b>	: Ultra Pure Water for CE	No specific data.
	Inorganic Anion Buffer Solution	No specific data.
	Sodium Hydroxide Solution 1.0N for HPCE	Adverse symptoms may include the following: pain watering redness
	Sodium Hydroxide Solution 0.1N for HPCE	Adverse symptoms may include the following: irritation watering redness
<b>Inhalation</b>	Inorganic Anion Test Mixture	No specific data.
	: Ultra Pure Water for CE	No specific data.
	Inorganic Anion Buffer Solution	No specific data.
	Sodium Hydroxide Solution 1.0N for HPCE	Adverse symptoms may include the following: respiratory tract irritation coughing
	Sodium Hydroxide Solution 0.1N for HPCE	No specific data.
	Inorganic Anion Test Mixture	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
<b>Skin contact</b>	: Ultra Pure Water for CE	No specific data.
	Inorganic Anion Buffer Solution	No specific data.
	Sodium Hydroxide Solution 1.0N for HPCE	Adverse symptoms may include the following: pain or irritation redness blistering may occur
	Sodium Hydroxide Solution 0.1N for HPCE	No specific data.
	Inorganic Anion Test Mixture	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
<b>Ingestion</b>	: Ultra Pure Water for CE	No specific data.
	Inorganic Anion Buffer Solution	No specific data.
	Sodium Hydroxide Solution 1.0N for HPCE	Adverse symptoms may include the following: stomach pains
	Sodium Hydroxide Solution 0.1N for HPCE	No specific data.
	Inorganic Anion Test Mixture	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations

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



## Section 4. First aid measures

<b>Notes to physician</b>	: Ultra Pure Water for CE	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Inorganic Anion Buffer Solution	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Sodium Hydroxide Solution 1.0N for HPCE	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Sodium Hydroxide Solution 0.1N for HPCE	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Inorganic Anion Test Mixture	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	: Ultra Pure Water for CE	No specific treatment.
	Inorganic Anion Buffer Solution	No specific treatment.
	Sodium Hydroxide Solution 1.0N for HPCE	No specific treatment.
	Sodium Hydroxide Solution 0.1N for HPCE	No specific treatment.
	Inorganic Anion Test Mixture	No specific treatment.
<b>Protection of first-aiders</b>	: Ultra Pure Water for CE	No action shall be taken involving any personal risk or without suitable training.
	Inorganic Anion Buffer Solution	No action shall be taken involving any personal risk or without suitable training.
	Sodium Hydroxide Solution 1.0N for HPCE	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
	Sodium Hydroxide Solution 0.1N for HPCE	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	Inorganic Anion Test Mixture	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: Ultra Pure Water for CE	Use an extinguishing agent suitable for the surrounding fire.
	Inorganic Anion Buffer Solution	Use an extinguishing agent suitable for the surrounding fire.
	Sodium Hydroxide Solution 1.0N for HPCE	Use an extinguishing agent suitable for the surrounding fire.
	Sodium Hydroxide Solution 0.1N for HPCE	Use an extinguishing agent suitable for the surrounding fire.
	Inorganic Anion Test Mixture	Use an extinguishing agent suitable for the surrounding fire.

## Section 5. Fire-fighting measures

<b>Unsuitable extinguishing media</b>	: Ultra Pure Water for CE	None known.
	Inorganic Anion Buffer Solution	None known.
	Sodium Hydroxide Solution 1.0N for HPCE	None known.
	Sodium Hydroxide Solution 0.1N for HPCE	None known.
	Inorganic Anion Test Mixture	None known.

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

<b>Specific hazards arising from the chemical</b>	: Ultra Pure Water for CE	In a fire or if heated, a pressure increase will occur and the container may burst.
	Inorganic Anion Buffer Solution	In a fire or if heated, a pressure increase will occur and the container may burst.
	Sodium Hydroxide Solution 1.0N for HPCE	In a fire or if heated, a pressure increase will occur and the container may burst.
	Sodium Hydroxide Solution 0.1N for HPCE	In a fire or if heated, a pressure increase will occur and the container may burst.
	Inorganic Anion Test Mixture	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous thermal decomposition products</b>	: Ultra Pure Water for CE	No specific data.
	Inorganic Anion Buffer Solution	No specific data.
	Sodium Hydroxide Solution 1.0N for HPCE	Decomposition products may include the following materials: metal oxide/oxides
	Sodium Hydroxide Solution 0.1N for HPCE	No specific data.
Inorganic Anion Test Mixture	No specific data.	

### 5.3 Advice for firefighters

<b>Special protective actions for fire-fighters</b>	: Ultra Pure Water for CE	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.
	Inorganic Anion Buffer Solution	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.
	Sodium Hydroxide Solution 1.0N for HPCE	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.
	Sodium Hydroxide Solution 0.1N for HPCE	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.
	Inorganic Anion Test Mixture	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
<b>Special protective equipment for fire-fighters</b>	: Ultra Pure Water for CE	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Inorganic Anion Buffer Solution	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. Fire-fighting measures

Sodium Hydroxide Solution 1.0N for HPCE	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Sodium Hydroxide Solution 0.1N for HPCE	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Inorganic Anion Test Mixture	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

**For non-emergency personnel**

: Ultra Pure Water for CE

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.

Inorganic Anion Buffer Solution

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.

Sodium Hydroxide Solution 1.0N for HPCE

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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Sodium Hydroxide Solution 0.1N for HPCE

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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Inorganic Anion Test Mixture

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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

## Section 6. Accidental release measures

<b>For emergency responders</b>	: Ultra Pure Water for CE	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".
	Inorganic Anion Buffer Solution	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".
	Sodium Hydroxide Solution 1.0N for HPCE	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".
	Sodium Hydroxide Solution 0.1N for HPCE	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".
	Inorganic Anion Test Mixture	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>	: Ultra Pure Water for CE	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).
	Inorganic Anion Buffer Solution	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).
	Sodium Hydroxide Solution 1.0N for HPCE	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).
	Sodium Hydroxide Solution 0.1N for HPCE	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).
	Inorganic Anion Test Mixture	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).
<b>6.3 Methods and materials for containment and cleaning up</b>		
<b>Methods for cleaning up</b>	: Ultra Pure Water for CE	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.
	Inorganic Anion Buffer Solution	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.

## Section 6. Accidental release measures

Sodium Hydroxide Solution 1.0N for HPCE	disposal container. Dispose of via a licensed waste disposal contractor. Stop leak if without risk. Move containers from spill area. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.
Sodium Hydroxide Solution 0.1N for HPCE	Stop leak if without risk. Move containers from spill area. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.
Inorganic Anion Test Mixture	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

: Ultra Pure Water for CE	Put on appropriate personal protective equipment (see Section 8).
Inorganic Anion Buffer Solution	Put on appropriate personal protective equipment (see Section 8).
Sodium Hydroxide Solution 1.0N for HPCE	Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.
Sodium Hydroxide Solution 0.1N for HPCE	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container.
Inorganic Anion Test Mixture	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an

## Section 7. Handling and storage

<b>Advice on general occupational hygiene</b>	: Ultra Pure Water for CE	approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Inorganic Anion Buffer Solution	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.
	Sodium Hydroxide Solution 1.0N for HPCE	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.
	Sodium Hydroxide Solution 0.1N for HPCE	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.
	Inorganic Anion Test Mixture	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
<b>7.2 Conditions for safe storage, including any incompatibilities</b>	: Ultra Pure Water for CE	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. See Section 10 for incompatible materials before handling or use. Storage temperature: 4°C (39.2°F). 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
	Inorganic Anion Buffer Solution	

## Section 7. Handling and storage

Sodium Hydroxide Solution 1.0N  
for HPCE

opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. Store between the following temperatures: 15 to 25°C (59 to 77°F). 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. Store in a corrosion resistant container with a resistant inner liner. Store locked up. Separate from acids. Keep away from metals. 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. See Section 10 for incompatible materials before handling or use.

Sodium Hydroxide Solution 0.1N  
for HPCE

Store between the following temperatures: 15 to 25°C (59 to 77°F). 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. Separate from acids. 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. See Section 10 for incompatible materials before handling or use.

Inorganic Anion Test Mixture

Storage temperature: 4°C (39.2°F). 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. Store locked up. 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. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

#### Recommendations

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>: Ultra Pure Water for CE</li> <li>Inorganic Anion Buffer Solution</li> <li>Sodium Hydroxide Solution 1.0N for HPCE</li> <li>Sodium Hydroxide Solution 0.1N for HPCE</li> <li>Inorganic Anion Test Mixture</li> </ul> | <ul style="list-style-type: none"> <li>Industrial applications, Professional applications.</li> <li>Industrial applications, Professional applications.</li> <li>Industrial applications, Professional applications.</li> <li>Industrial applications, Professional applications.</li> <li>Industrial applications, Professional applications.</li> </ul> |
|--|---|

## Section 7. Handling and storage

<b>Industrial sector specific solutions</b>	: Ultra Pure Water for CE	Not applicable.
	Inorganic Anion Buffer Solution	Not applicable.
	Sodium Hydroxide Solution 1.0N for HPCE	Not applicable.
	Sodium Hydroxide Solution 0.1N for HPCE	Not applicable.
	Inorganic Anion Test Mixture	Not applicable.

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
<b>Ultra Pure Water for CE</b> Water	None.
<b>Sodium Hydroxide Solution 1.0N for HPCE</b> Sodium hydroxide	<b>ACGIH TLV (United States, 3/2016).</b> C: 2 mg/m <sup>3</sup> <b>OSHA PEL 1989 (United States, 3/1989).</b> CEIL: 2 mg/m <sup>3</sup> <b>NIOSH REL (United States, 10/2013).</b> CEIL: 2 mg/m <sup>3</sup> <b>OSHA PEL (United States, 6/2016).</b> TWA: 2 mg/m <sup>3</sup> 8 hours.
<b>Sodium Hydroxide Solution 0.1N for HPCE</b> Sodium hydroxide	<b>ACGIH TLV (United States, 3/2016).</b> C: 2 mg/m <sup>3</sup> <b>OSHA PEL 1989 (United States, 3/1989).</b> CEIL: 2 mg/m <sup>3</sup> <b>NIOSH REL (United States, 10/2013).</b> CEIL: 2 mg/m <sup>3</sup> <b>OSHA PEL (United States, 6/2016).</b> TWA: 2 mg/m <sup>3</sup> 8 hours.
<b>Inorganic Anion Test Mixture</b> Sodium bromide	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: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	Ultra Pure Water for CE	Liquid.
	Inorganic Anion Buffer Solution	Liquid.
	Sodium Hydroxide Solution 1.0N for HPCE	Liquid. [Clear.]
	Sodium Hydroxide Solution 0.1N for HPCE	Liquid. [Clear.]
	Inorganic Anion Test Mixture	Liquid.
<b>Color</b>	Ultra Pure Water for CE	Clear. Colorless.
	Inorganic Anion Buffer Solution	Colorless.
	Sodium Hydroxide Solution 1.0N for HPCE	Colorless.
	Sodium Hydroxide Solution 0.1N for HPCE	Colorless.
	Inorganic Anion Test Mixture	Clear. Colorless.
<b>Odor</b>	Ultra Pure Water for CE	Odorless.
	Inorganic Anion Buffer Solution	Odorless.
	Sodium Hydroxide Solution 1.0N for HPCE	Not available.
	Sodium Hydroxide Solution 0.1N for HPCE	Not available.
	Inorganic Anion Test Mixture	Not available.
<b>Odor threshold</b>	Ultra Pure Water for CE	Not available.
	Inorganic Anion Buffer Solution	Not available.
	Sodium Hydroxide Solution 1.0N for HPCE	Not available.
	Sodium Hydroxide Solution 0.1N for HPCE	Not available.
	Inorganic Anion Test Mixture	Not available.

**pH** :

## Section 9. Physical and chemical properties

	Ultra Pure Water for CE	7
	Inorganic Anion Buffer Solution	7.7
	Sodium Hydroxide Solution 1.0N for HPCE	>11.5
	Sodium Hydroxide Solution 0.1N for HPCE	13
	Inorganic Anion Test Mixture	Not available.
<b>Melting point</b>	: Ultra Pure Water for CE	0°C (32°F)
	Inorganic Anion Buffer Solution	0°C (32°F)
	Sodium Hydroxide Solution 1.0N for HPCE	0°C (32°F)
	Sodium Hydroxide Solution 0.1N for HPCE	0°C (32°F)
	Inorganic Anion Test Mixture	0°C (32°F)
<b>Boiling point</b>	: Ultra Pure Water for CE	100°C (212°F)
	Inorganic Anion Buffer Solution	100°C (212°F)
	Sodium Hydroxide Solution 1.0N for HPCE	100°C (212°F)
	Sodium Hydroxide Solution 0.1N for HPCE	100°C (212°F)
	Inorganic Anion Test Mixture	100°C (212°F)
<b>Flash point</b>	: Ultra Pure Water for CE	Not applicable.
	Inorganic Anion Buffer Solution	Not available.
	Sodium Hydroxide Solution 1.0N for HPCE	Not available.
	Sodium Hydroxide Solution 0.1N for HPCE	Not available.
	Inorganic Anion Test Mixture	Not available.
<b>Evaporation rate</b>	: Ultra Pure Water for CE	Not available.
	Inorganic Anion Buffer Solution	<1 (butyl acetate = 1)
	Sodium Hydroxide Solution 1.0N for HPCE	Not available.
	Sodium Hydroxide Solution 0.1N for HPCE	Not available.
	Inorganic Anion Test Mixture	<1 (butyl acetate = 1)
<b>Flammability (solid, gas)</b>	: Ultra Pure Water for CE	Not applicable.
	Inorganic Anion Buffer Solution	Not applicable.
	Sodium Hydroxide Solution 1.0N for HPCE	Not applicable.
	Sodium Hydroxide Solution 0.1N for HPCE	Not applicable.
	Inorganic Anion Test Mixture	Not applicable.
<b>Lower and upper explosive (flammable) limits</b>	: Ultra Pure Water for CE	Not available.
	Inorganic Anion Buffer Solution	Not available.
	Sodium Hydroxide Solution 1.0N for HPCE	Not available.
	Sodium Hydroxide Solution 0.1N for HPCE	Not available.
	Inorganic Anion Test Mixture	Not available.
<b>Vapor pressure</b>	: Ultra Pure Water for CE	3.2 kPa (23.8 mm Hg) [room temperature]
	Inorganic Anion Buffer Solution	Not available.
	Sodium Hydroxide Solution 1.0N for HPCE	<2.4 kPa (<18 mm Hg) [room temperature]
	Sodium Hydroxide Solution 0.1N for HPCE	<2.4 kPa (<18 mm Hg) [room temperature]
	Inorganic Anion Test Mixture	Not available.
<b>Vapor density</b>	:	

## Section 9. Physical and chemical properties

	Ultra Pure Water for CE	0.62 [Air = 1]
	Inorganic Anion Buffer Solution	>1 [Air = 1]
	Sodium Hydroxide Solution 1.0N for HPCE	<1 [Air = 1]
	Sodium Hydroxide Solution 0.1N for HPCE	<1 [Air = 1]
	Inorganic Anion Test Mixture	Not available.
<b>Relative density</b>	: Ultra Pure Water for CE	1
	Inorganic Anion Buffer Solution	Not available.
	Sodium Hydroxide Solution 1.0N for HPCE	Not available.
	Sodium Hydroxide Solution 0.1N for HPCE	Not available.
	Inorganic Anion Test Mixture	Not available.
<b>Solubility</b>	: Ultra Pure Water for CE	Easily soluble in the following materials: cold water and hot water.
	Inorganic Anion Buffer Solution	Easily soluble in the following materials: cold water and hot water.
	Sodium Hydroxide Solution 1.0N for HPCE	Easily soluble in the following materials: cold water and hot water.
	Sodium Hydroxide Solution 0.1N for HPCE	Easily soluble in the following materials: cold water and hot water.
	Inorganic Anion Test Mixture	Easily soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: Ultra Pure Water for CE	-1.38
	Inorganic Anion Buffer Solution	Not available.
	Sodium Hydroxide Solution 1.0N for HPCE	Not available.
	Sodium Hydroxide Solution 0.1N for HPCE	Not available.
	Inorganic Anion Test Mixture	Not available.
<b>Auto-ignition temperature</b>	: Ultra Pure Water for CE	Not applicable.
	Inorganic Anion Buffer Solution	Not available.
	Sodium Hydroxide Solution 1.0N for HPCE	Not available.
	Sodium Hydroxide Solution 0.1N for HPCE	Not available.
	Inorganic Anion Test Mixture	Not available.
<b>Decomposition temperature</b>	: Ultra Pure Water for CE	Not available.
	Inorganic Anion Buffer Solution	Not available.
	Sodium Hydroxide Solution 1.0N for HPCE	Not available.
	Sodium Hydroxide Solution 0.1N for HPCE	Not available.
	Inorganic Anion Test Mixture	Not available.
<b>Viscosity</b>	: Ultra Pure Water for CE	Not available.
	Inorganic Anion Buffer Solution	Not available.
	Sodium Hydroxide Solution 1.0N for HPCE	Not available.
	Sodium Hydroxide Solution 0.1N for HPCE	Not available.
	Inorganic Anion Test Mixture	Not available.

## Section 10. Stability and reactivity

<b>10.1 Reactivity</b>	: Ultra Pure Water for CE  Inorganic Anion Buffer Solution  Sodium Hydroxide Solution 1.0N for HPCE Sodium Hydroxide Solution 0.1N for HPCE Inorganic Anion Test Mixture	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. 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>	: Ultra Pure Water for CE Inorganic Anion Buffer Solution Sodium Hydroxide Solution 1.0N for HPCE Sodium Hydroxide Solution 0.1N for HPCE Inorganic Anion Test Mixture	The product is stable. The product is stable. The product is stable.  The product is stable.  The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: Ultra Pure Water for CE  Inorganic Anion Buffer Solution  Sodium Hydroxide Solution 1.0N for HPCE Sodium Hydroxide Solution 0.1N for HPCE Inorganic Anion Test Mixture	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. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: Ultra Pure Water for CE Inorganic Anion Buffer Solution Sodium Hydroxide Solution 1.0N for HPCE Sodium Hydroxide Solution 0.1N for HPCE Inorganic Anion Test Mixture	No specific data. No specific data. No specific data.  No specific data.  No specific data.
<b>10.5 Incompatible materials</b>	: Ultra Pure Water for CE  Inorganic Anion Buffer Solution  Sodium Hydroxide Solution 1.0N for HPCE  Sodium Hydroxide Solution 0.1N for HPCE  Inorganic Anion Test Mixture	May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. Reactive or incompatible with the following materials: acids metals Reactive or incompatible with the following materials: acids May react or be incompatible with oxidizing materials.

## Section 10. Stability and reactivity

<b>10.6 Hazardous decomposition products</b>	: Ultra Pure Water for CE	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Inorganic Anion Buffer Solution	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Sodium Hydroxide Solution 1.0N for HPCE	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Sodium Hydroxide Solution 0.1N for HPCE	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Inorganic Anion Test Mixture	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

Product/ingredient name	Result	Species	Dose	Exposure
<b>Inorganic Anion Test Mixture</b> Sodium bromide	LD50 Oral	Rat	2500 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>Sodium Hydroxide Solution 1.0N for HPCE</b> Sodium hydroxide	Eyes - Severe irritant	Rabbit	-	24 hours 50 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	1 Percent	-
	Eyes - Severe irritant	Rabbit	-	0.5 minutes 1 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 milligrams	-
<b>Sodium Hydroxide Solution 0.1N for HPCE</b> Sodium hydroxide	Eyes - Severe irritant	Rabbit	-	24 hours 50 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	1 Percent	-
	Eyes - Severe irritant	Rabbit	-	0.5 minutes 1 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 milligrams	-

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity

## Section 11. Toxicological information

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
<b>Sodium Hydroxide Solution 1.0N for HPCE</b> Sodium Hydroxide Solution 1.0N for HPCE	Category 3	Not applicable.	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

### Information on the likely routes of exposure

Ultra Pure Water for CE	Not available.
Inorganic Anion Buffer Solution	Not available.
Sodium Hydroxide Solution 1.0N for HPCE	Routes of entry anticipated: Oral, Dermal, Inhalation.
Sodium Hydroxide Solution 0.1N for HPCE	Routes of entry anticipated: Oral, Dermal, Inhalation.
Inorganic Anion Test Mixture	Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

#### Eye contact

Ultra Pure Water for CE	No known significant effects or critical hazards.
Inorganic Anion Buffer Solution	No known significant effects or critical hazards.
Sodium Hydroxide Solution 1.0N for HPCE	Causes serious eye damage.
Sodium Hydroxide Solution 0.1N for HPCE	Causes eye irritation.
Inorganic Anion Test Mixture	No known significant effects or critical hazards.

#### Inhalation

Ultra Pure Water for CE	No known significant effects or critical hazards.
Inorganic Anion Buffer Solution	No known significant effects or critical hazards.
Sodium Hydroxide Solution 1.0N for HPCE	May cause respiratory irritation.
Sodium Hydroxide Solution 0.1N for HPCE	No known significant effects or critical hazards.
Inorganic Anion Test Mixture	No known significant effects or critical hazards.

#### Skin contact

Ultra Pure Water for CE	No known significant effects or critical hazards.
Inorganic Anion Buffer Solution	No known significant effects or critical hazards.
Sodium Hydroxide Solution 1.0N for HPCE	Causes skin irritation.
Sodium Hydroxide Solution 0.1N for HPCE	No known significant effects or critical hazards.
Inorganic Anion Test Mixture	No known significant effects or critical hazards.

#### Ingestion

Ultra Pure Water for CE	No known significant effects or critical hazards.
Inorganic Anion Buffer Solution	No known significant effects or critical hazards.
Sodium Hydroxide Solution 1.0N for HPCE	Corrosive to the digestive tract. Causes burns.
Sodium Hydroxide Solution 0.1N for HPCE	No known significant effects or critical hazards.
Inorganic Anion Test Mixture	No known significant effects or critical hazards.

## Section 11. Toxicological information

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

<b>Eye contact</b>	: Ultra Pure Water for CE	No specific data.
	Inorganic Anion Buffer Solution	No specific data.
	Sodium Hydroxide Solution 1.0N for HPCE	Adverse symptoms may include the following: pain watering redness
	Sodium Hydroxide Solution 0.1N for HPCE	Adverse symptoms may include the following: irritation watering redness
<b>Inhalation</b>	: Inorganic Anion Test Mixture	No specific data.
	: Ultra Pure Water for CE	No specific data.
	Inorganic Anion Buffer Solution	No specific data.
	Sodium Hydroxide Solution 1.0N for HPCE	Adverse symptoms may include the following: respiratory tract irritation coughing
	Sodium Hydroxide Solution 0.1N for HPCE	No specific data.
	Inorganic Anion Test Mixture	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
<b>Skin contact</b>	: Ultra Pure Water for CE	No specific data.
	Inorganic Anion Buffer Solution	No specific data.
	Sodium Hydroxide Solution 1.0N for HPCE	Adverse symptoms may include the following: pain or irritation redness blistering may occur
	Sodium Hydroxide Solution 0.1N for HPCE	No specific data.
	Inorganic Anion Test Mixture	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
<b>Ingestion</b>	: Ultra Pure Water for CE	No specific data.
	Inorganic Anion Buffer Solution	No specific data.
	Sodium Hydroxide Solution 1.0N for HPCE	Adverse symptoms may include the following: stomach pains
	Sodium Hydroxide Solution 0.1N for HPCE	No specific data.
	Inorganic Anion Test Mixture	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations

### 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

## Section 11. Toxicological information

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

<b>General</b>	: Ultra Pure Water for CE Inorganic Anion Buffer Solution Sodium Hydroxide Solution 1.0N for HPCE Sodium Hydroxide Solution 0.1N for HPCE Inorganic Anion Test Mixture	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: Ultra Pure Water for CE Inorganic Anion Buffer Solution Sodium Hydroxide Solution 1.0N for HPCE Sodium Hydroxide Solution 0.1N for HPCE Inorganic Anion Test Mixture	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Mutagenicity</b>	: Ultra Pure Water for CE Inorganic Anion Buffer Solution Sodium Hydroxide Solution 1.0N for HPCE Sodium Hydroxide Solution 0.1N for HPCE Inorganic Anion Test Mixture	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Teratogenicity</b>	: Ultra Pure Water for CE Inorganic Anion Buffer Solution Sodium Hydroxide Solution 1.0N for HPCE Sodium Hydroxide Solution 0.1N for HPCE Inorganic Anion Test Mixture	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Suspected of damaging the unborn child.
<b>Developmental effects</b>	: Ultra Pure Water for CE Inorganic Anion Buffer Solution Sodium Hydroxide Solution 1.0N for HPCE Sodium Hydroxide Solution 0.1N for HPCE Inorganic Anion Test Mixture	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Fertility effects</b>	: Ultra Pure Water for CE Inorganic Anion Buffer Solution Sodium Hydroxide Solution 1.0N for HPCE Sodium Hydroxide Solution 0.1N for HPCE Inorganic Anion Test Mixture	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.



## Section 12. Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
<b>Sodium Hydroxide Solution 1.0N for HPCE</b> Sodium hydroxide	Acute LC50 125 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
<b>Sodium Hydroxide Solution 0.1N for HPCE</b> Sodium hydroxide	Acute LC50 125 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
<b>Inorganic Anion Test Mixture</b> Sodium bromide	Acute EC50 8000000 µg/l Fresh water	Algae - Scenedesmus subspicatus - Exponential growth phase	72 hours
	Acute EC50 6000000 µg/l Fresh water	Algae - Scenedesmus subspicatus - Exponential growth phase	96 hours
	Acute EC50 5800000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 44000 µg/l Fresh water	Fish - Poecilia reticulata	96 hours
	Chronic NOEC 2500000 µg/l Fresh water	Algae - Scenedesmus pannonicus - Exponential growth phase	72 hours
	Chronic NOEC 7.5 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	21 days
Chronic NOEC 10000 µg/l Fresh water	Fish - Poecilia reticulata - Juvenile (Fledgling, Hatchling, Weanling)	4 weeks	

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
<b>Ultra Pure Water for CE</b> Water	-	100 % - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>Ultra Pure Water for CE</b> Water	-	-	Readily
<b>Sodium Hydroxide Solution 1.0N for HPCE</b> Sodium hydroxide	-	-	Readily
<b>Sodium Hydroxide Solution 0.1N for HPCE</b> Sodium hydroxide	-	-	Readily

### 12.3 Bioaccumulative potential

## Section 12. Ecological information

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Ultra Pure Water for CE Water	-1.38	-	low
Inorganic Anion Test Mixture Sodium bromide	-	0.23	low

### 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


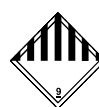
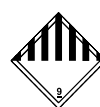
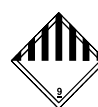
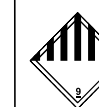
**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of 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

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	UN3316	UN3316	UN3316	UN3316	UN3316
UN proper shipping name	Chemical kits	CHEMICAL KIT	EQUIPO QUIMICO	CHEMICAL KIT	Chemical kit
Transport hazard class(es)	9 	9 	9 	9 	9 

## Section 14. Transport information

<b>Packing group</b>	II	II	II	II	II
<b>Environmental hazards</b>	No.	No.	No.	No.	No.

### Additional information

- DOT Classification** : **Limited quantity** Yes.  
**Packaging instruction** Exceptions: 161. Non-bulk: 161. Bulk: None.  
**Quantity limitation** Passenger aircraft/rail: 10 kg. Cargo aircraft: 10 kg.  
**Special provisions** 15  
**Remarks** Requires Dangerous Goods BOL
- TDG Classification** : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 9).  
**Passenger Carrying Road or Rail Index** 10  
**Special provisions** 65, 141
- Mexico Classification** : **Special provisions** 251, 340
- IMDG** : **Emergency schedules** F-A, \_S-P\_  
**Special provisions** 251, 340
- IATA** : **Quantity limitation** Passenger and Cargo Aircraft: 10 kg. Packaging instructions: 960. Cargo Aircraft Only: 10 kg. Packaging instructions: 960. Limited Quantities - Passenger Aircraft: 1 kg. Packaging instructions: Y960.  
**Special provisions** A44, A163  
**Remarks** Requires Shipper's Declaration of Dangerous Goods
- 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

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

- U.S. Federal regulations** : **TSCA 5(a)2 final significant new use rules:** Sodium nitrite  
**TSCA 8(a) CDR Exempt/Partial exemption:** All components are listed or exempted.  
**Commerce control list precursor:** 2,2',2''-Nitrotriethanol; Sodium fluoride  
**Clean Water Act (CWA) 311:** Sodium hydroxide; Sodium nitrite; Sodium fluoride
- Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed
- 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**

## Section 15. Regulatory information

### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : Ultra Pure Water for CE Not applicable.  
 Inorganic Anion Buffer Solution Not applicable.  
 Sodium Hydroxide Solution 1.0N for HPCE Reactive  
 Sodium Hydroxide Solution 0.1N for HPCE Immediate (acute) health hazard  
 Inorganic Anion Test Mixture Delayed (chronic) health hazard

### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
<b>Sodium Hydroxide Solution 1.0N for HPCE</b> Sodium hydroxide	≤5	No.	No.	No.	Yes.	No.
<b>Sodium Hydroxide Solution 0.1N for HPCE</b> Sodium hydroxide	≤1	No.	No.	No.	Yes.	No.
<b>Inorganic Anion Test Mixture</b> Sodium bromide	≤0.3	No.	No.	No.	No.	Yes.

### 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.

### International regulations

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

Not listed.

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

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

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

Not listed.

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

Not listed.

### Inventory list

**Australia** : Not determined.

**Canada** : Not determined.

## Section 15. Regulatory information

<b>China</b>	: Not determined.
<b>Europe</b>	: Not determined.
<b>Japan</b>	: <b>Japan inventory (ENCS)</b> : Not determined. <b>Japan inventory (ISHL)</b> : Not determined.
<b>Malaysia</b>	: Not determined.
<b>New Zealand</b>	: Not determined.
<b>Philippines</b>	: Not determined.
<b>Republic of Korea</b>	: Not determined.
<b>Taiwan</b>	: Not determined.
<b>Thailand</b>	: Not determined.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: Not determined.
<b>Viet Nam</b>	: Not determined.

## Section 16. Other information

### History

<b>Date of issue</b>	: 08/01/2017
<b>Date of previous issue</b>	: No previous validation.
<b>Version</b>	: 1

✔ Indicates information that has changed from previously issued version.

### Notice to reader

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