Conforms to HPR 2015

SAFETY DATA SHEET

Agilent Technologies

Forensic Anion Solutions Kit for CE, Part Number 5064-8208

Section 1. Identification

Product identifier : Forensic Anion Solutions Kit for CE, Part Number 5064-8208

Part no. (chemical kit) : 5064-8208

Part no. :

Ultra Pure Water for CE	5062-8578
Inorganic Anion Test Mixture	5062-8524
Basic Anion Buffer for CE	5064-8209

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

Identified uses : For forensic use (FFU)
The following article is also contained in this kit: G1600-64211, 5181-8836, 12-5968-3903E. (No SDS is necessary.)

Ultra Pure Water for CE	500 ml
Inorganic Anion Test Mixture	10 ml
Basic Anion Buffer for CE	5 x 50 ml

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

Emergency telephone number (with hours of operation) : CHEMTREC®: 1-800-424-9300

Section 2. Hazard identification

Classification of the substance or mixture

Inorganic Anion Test Mixture

H400	AQUATIC HAZARD (ACUTE) - Category 1
H412	AQUATIC HAZARD (LONG-TERM) - Category 3

Basic Anion Buffer for CE

H314	SKIN CORROSION - Category 1
H318	SERIOUS EYE DAMAGE - Category 1
	Health Hazards Not Otherwise Classified - Category 1

GHS label elements

Hazard pictograms : Inorganic Anion Test Mixture

Basic Anion Buffer for CE

Signal word :

Ultra Pure Water for CE	No signal word.
Inorganic Anion Test Mixture	Warning
Basic Anion Buffer for CE	Danger

Section 2. Hazard identification

Hazard statements	:	Ultra Pure Water for CE	No known significant effects or critical hazards.
		Inorganic Anion Test Mixture	H400 - Very toxic to aquatic life. H412 - Harmful to aquatic life with long lasting effects.
		Basic Anion Buffer for CE	H314 - Causes severe skin burns and eye damage. Causes severe digestive tract burns.
Precautionary statements			
Prevention	:	Ultra Pure Water for CE	Not applicable.
		Inorganic Anion Test Mixture	P273 - Avoid release to the environment.
		Basic Anion Buffer for CE	P280 - Wear protective gloves, protective clothing and eye or face protection.
Response	:	Ultra Pure Water for CE	Not applicable.
		Inorganic Anion Test Mixture	P391 - Collect spillage.
		Basic Anion Buffer for CE	P304 + P310 - IF INHALED: Immediately call a POISON CENTER or doctor. P301 + P310, P330, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353, P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. P363 - Wash contaminated clothing before reuse. 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 doctor.
Storage	:	Ultra Pure Water for CE	Not applicable.
		Inorganic Anion Test Mixture	Not applicable.
		Basic Anion Buffer for CE	Not applicable.
Disposal	:	Ultra Pure Water for CE	Not applicable.
		Inorganic Anion Test Mixture	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
		Basic Anion Buffer for CE	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	:	Ultra Pure Water for CE	None known.
		Inorganic Anion Test Mixture	None known.
		Basic Anion Buffer for CE	Do not taste or swallow. Wash thoroughly after handling.
		Basic Anion Buffer for CE	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 7.2%
Other hazards which do not result in classification	:	Ultra Pure Water for CE	None known.
		Inorganic Anion Test Mixture	None known.
		Basic Anion Buffer for CE	None known.

Section 3. Composition/information on ingredients

Substance/mixture	:	Ultra Pure Water for CE	Substance
		Inorganic Anion Test Mixture	Mixture
		Basic Anion Buffer for CE	Mixture

Section 3. Composition/information on ingredients

Ingredient name	Synonyms	% (w/w)	CAS number
Ultra Pure Water for CE			
water	Water	100	7732-18-5
Inorganic Anion Test Mixture			
Sodium nitrite	Sodium Nitrite	≥0.1 - ≤1	7632-00-0
Sodium nitrate	Sodium nitrate	≥0.1 - ≤1	7631-99-4
Basic Anion Buffer for CE			
Pyridine-2,3-dicarboxylic acid	PDC	≥5 - ≤10	89-00-9
Sodium hydroxide	Sodium Hydroxide	≥1 - ≤5	1310-73-2

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

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

Section 4. First-aid measures

Description of necessary first aid measures

Eye contact :

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 Test Mixture	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.
Basic Anion Buffer for CE	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.

Inhalation :

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 Test Mixture	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Basic Anion Buffer for CE	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

Section 4. First-aid measures

			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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	:	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 Test Mixture	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		Basic Anion Buffer for CE	Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with 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.
Ingestion	:	Ultra Pure Water for CE	Wash out mouth with water. 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 Test Mixture	Wash out mouth with water. 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.
		Basic Anion Buffer for CE	Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	:	Ultra Pure Water for CE	No known significant effects or critical hazards.
		Inorganic Anion Test Mixture	No known significant effects or critical hazards.
		Basic Anion Buffer for CE	Causes serious eye damage.
Inhalation	:	Ultra Pure Water for CE	No known significant effects or critical hazards.
		Inorganic Anion Test Mixture	No known significant effects or critical hazards.
		Basic Anion Buffer for CE	No known significant effects or critical hazards.
Skin contact	:	Ultra Pure Water for CE	No known significant effects or critical hazards.
		Inorganic Anion Test Mixture	No known significant effects or critical hazards.
		Basic Anion Buffer for CE	Causes severe burns.

Section 4. First-aid measures

Ingestion	:	Ultra Pure Water for CE	No known significant effects or critical hazards.
		Inorganic Anion Test Mixture	No known significant effects or critical hazards.
		Basic Anion Buffer for CE	Severely corrosive to the digestive tract. Causes severe burns.

Over-exposure signs/symptoms

Eye contact	:	Ultra Pure Water for CE	No specific data.
		Inorganic Anion Test Mixture	No specific data.
		Basic Anion Buffer for CE	Adverse symptoms may include the following: pain watering redness
Inhalation	:	Ultra Pure Water for CE	No specific data.
		Inorganic Anion Test Mixture	No specific data.
		Basic Anion Buffer for CE	No specific data.
Skin contact	:	Ultra Pure Water for CE	No specific data.
		Inorganic Anion Test Mixture	No specific data.
		Basic Anion Buffer for CE	Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	:	Ultra Pure Water for CE	No specific data.
		Inorganic Anion Test Mixture	No specific data.
		Basic Anion Buffer for CE	Adverse symptoms may include the following: stomach pains

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

Notes to physician	:	Ultra Pure Water for CE	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.
		Basic Anion Buffer for CE	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	:	Ultra Pure Water for CE	No specific treatment.
		Inorganic Anion Test Mixture	No specific treatment.
		Basic Anion Buffer for CE	No specific treatment.
Protection of first-aiders	:	Ultra Pure Water for CE	No action shall be taken involving any personal risk or without suitable training.
		Inorganic Anion Test Mixture	No action shall be taken involving any personal risk or without suitable training.
		Basic Anion Buffer for CE	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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	:	Ultra Pure Water for CE	Use an extinguishing agent suitable for the surrounding fire.
		Inorganic Anion Test Mixture	Use an extinguishing agent suitable for the surrounding fire.
		Basic Anion Buffer for CE	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	Ultra Pure Water for CE	None known.
		Inorganic Anion Test Mixture	None known.
		Basic Anion Buffer for CE	None known.
Specific hazards arising from the chemical	:	Ultra Pure Water for CE	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. This material is very toxic to aquatic life. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
		Basic Anion Buffer for CE	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	:	Ultra Pure Water for CE	No specific data.
		Inorganic Anion Test Mixture	No specific data.
		Basic Anion Buffer for CE	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides metal oxide/oxides
Special protective actions for fire-fighters	:	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 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.
		Basic Anion Buffer 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.
Special protective equipment for fire-fighters	:	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 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.
		Basic Anion Buffer 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.

Section 6. Accidental release measures

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 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. Put on appropriate personal protective equipment.
		Basic Anion Buffer 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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:	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 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".
		Basic Anion Buffer 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".
Environmental precautions	:	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 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
		Basic Anion Buffer 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).

Methods and materials for containment and cleaning up

Section 6. Accidental release measures

Methods for cleaning up	:	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 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.
		Basic Anion Buffer for CE	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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	:	Ultra Pure Water for CE	Put on appropriate personal protective equipment (see Section 8).
		Inorganic Anion Test Mixture	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an 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.
		Basic Anion Buffer for CE	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. 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 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.
Advice on general occupational hygiene	:	Ultra Pure Water for CE	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.
		Basic Anion Buffer for CE	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face

Section 7. Handling and storage

before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities :

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.

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. 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.

Basic Anion Buffer 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. Store locked up. 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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Basic Anion Buffer for CE Sodium hydroxide	**CA Alberta Provincial (Canada, 6/2018).** C: 2 mg/m³ **CA British Columbia Provincial (Canada, 6/2022).** C: 2 mg/m³ **CA Ontario Provincial (Canada, 6/2019).** Ceiling Limit: 2 mg/m³ **CA Quebec Provincial (Canada, 6/2022).** STEV: 2 mg/m³ 15 minutes. **CA Saskatchewan Provincial (Canada,**

Section 8. Exposure controls/personal protection

	7/2013). CEIL: 2 mg/m³

Biological exposure indices

No exposure indices known.

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

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: 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 and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Ultra Pure Water for CE Liquid.
Inorganic Anion Test Mixture Liquid.
Basic Anion Buffer for CE Liquid.

Section 9. Physical and chemical properties and safety characteristics

Color :
Ultra Pure Water for CE — Clear. / Colorless.
Inorganic Anion Test Mixture — Clear. / Colorless.
Basic Anion Buffer for CE — Not available.

Odor :
Ultra Pure Water for CE — Odorless.
Inorganic Anion Test Mixture — Not available.
Basic Anion Buffer for CE — Odorless.

Odor threshold :
Ultra Pure Water for CE — Not available.
Inorganic Anion Test Mixture — Not available.
Basic Anion Buffer for CE — Not available.

pH :
Ultra Pure Water for CE — 7
Inorganic Anion Test Mixture — Not available.
Basic Anion Buffer for CE — 12.1

Melting point/freezing point :
Ultra Pure Water for CE — 0°C (32°F)
Inorganic Anion Test Mixture — 0°C (32°F)
Basic Anion Buffer for CE — 0°C (32°F)

Boiling point, initial boiling point, and boiling range :
Ultra Pure Water for CE — 100°C (212°F)
Inorganic Anion Test Mixture — 100°C (212°F)
Basic Anion Buffer for CE — 100°C (212°F)

Flash point :
Ultra Pure Water for CE — Closed cup: Not applicable.
Inorganic Anion Test Mixture — Not available.
Basic Anion Buffer for CE — Not available.

Evaporation rate :
Ultra Pure Water for CE — Not available.
Inorganic Anion Test Mixture — <1 (butyl acetate = 1)
Basic Anion Buffer for CE — <1 (butyl acetate = 1)

Flammability :
Ultra Pure Water for CE — Not applicable.
Inorganic Anion Test Mixture — Not applicable.
Basic Anion Buffer for CE — Not applicable.

Lower and upper explosion limit/flammability limit :
Ultra Pure Water for CE — Not available.
Inorganic Anion Test Mixture — Not available.
Basic Anion Buffer for CE — Not available.

Vapor pressure :
Ultra Pure Water for CE — 2.3 kPa (17.5 mm Hg) [room temperature]
12.3 kPa (92.258 mm Hg) [50°C (122°F)]

Ingredient name	Vapor Pressure at 20˚C			Vapor pressure at 50˚C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Inorganic Anion Test Mixture						
water	17.5	2.3	-	92.258	12.3	-
Basic Anion Buffer for CE						
water	17.5	2.3	-	92.258	12.3	-
Pyridine-2,3-dicarboxylic acid	0.0000061	0.00000081	-	-	-	-

Relative vapor density :
Ultra Pure Water for CE — 0.62 [Air = 1]
Inorganic Anion Test Mixture — Not available.
Basic Anion Buffer for CE — <1 [Air = 1]

Section 9. Physical and chemical properties and safety characteristics

Relative density :

Ultra Pure Water for CE	1
Inorganic Anion Test Mixture	Not available.
Basic Anion Buffer for CE	>1

Solubility(ies) :

Media	Result
Ultra Pure Water for CE	
water	Soluble
Inorganic Anion Test Mixture	
water	Soluble
Basic Anion Buffer for CE	
water	Soluble

Partition coefficient: n-octanol/water :

Ultra Pure Water for CE	-1.38
Inorganic Anion Test Mixture	Not applicable.
Basic Anion Buffer for CE	Not applicable.

Auto-ignition temperature :

Ultra Pure Water for CE	Not applicable.

Decomposition temperature :

Ultra Pure Water for CE	Not available.
Inorganic Anion Test Mixture	Not available.
Basic Anion Buffer for CE	Not available.

Viscosity :

Ultra Pure Water for CE	Not available.
Inorganic Anion Test Mixture	Not available.
Basic Anion Buffer for CE	Not available.

Particle characteristics

Median particle size :

Ultra Pure Water for CE	Not applicable.
Inorganic Anion Test Mixture	Not applicable.
Basic Anion Buffer for CE	Not applicable.

Section 10. Stability and reactivity

Reactivity :

Ultra Pure Water for CE	No specific test data related to reactivity available for this product or its ingredients.
Inorganic Anion Test Mixture	No specific test data related to reactivity available for this product or its ingredients.
Basic Anion Buffer for CE	No specific test data related to reactivity available for this product or its ingredients.

Chemical stability :

Ultra Pure Water for CE	The product is stable.
Inorganic Anion Test Mixture	The product is stable.
Basic Anion Buffer for CE	The product is stable.

Possibility of hazardous reactions :

Ultra Pure Water for CE	Under normal conditions of storage and use, hazardous reactions will not occur.
Inorganic Anion Test Mixture	Under normal conditions of storage and use, hazardous reactions will not occur.
Basic Anion Buffer for CE	Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid :

Ultra Pure Water for CE	No specific data.
Inorganic Anion Test Mixture	No specific data.
Basic Anion Buffer for CE	No specific data.

Incompatible materials :

Ultra Pure Water for CE	May react or be incompatible with oxidizing materials.
Inorganic Anion Test Mixture	May react or be incompatible with oxidizing materials.
Basic Anion Buffer for CE	Reactive or incompatible with the following materials: acids

Section 10. Stability and reactivity

Hazardous decomposition products	:	Ultra Pure Water for CE	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.
		Basic Anion Buffer for CE	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Inorganic Anion Test Mixture				
Sodium nitrite	LC50 Inhalation Dusts and mists	Rat	5.5 mg/l	4 hours
Sodium nitrate	LD50 Oral	Rat	1267 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Inorganic Anion Test Mixture					
Sodium nitrite	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
Basic Anion Buffer for CE					
Pyridine-2,3-dicarboxylic acid	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Sodium hydroxide	Eyes - Severe irritant	Rabbit	-	1 %	-
	Eyes - Severe irritant	Rabbit	-	0.5 minutes 1 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 50 ug	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 mg	-

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Classification

Product/ingredient name	IARC	NTP	ACGIH
Inorganic Anion Test Mixture			
Sodium nitrate	2A	-	-

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Inorganic Anion Test Mixture			
Sodium nitrite	Category 2	-	blood system
Sodium nitrate	Category 2	-	blood system
	Category 3		Respiratory tract irritation
Basic Anion Buffer for CE			
Pyridine-2,3-dicarboxylic acid	Category 3	-	Respiratory tract irritation
Sodium hydroxide	Category 3	-	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 Test Mixture	Not available.
Basic Anion Buffer for CE	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact :

Ultra Pure Water for CE	No known significant effects or critical hazards.
Inorganic Anion Test Mixture	No known significant effects or critical hazards.
Basic Anion Buffer for CE	Causes serious eye damage.

Inhalation :

Ultra Pure Water for CE	No known significant effects or critical hazards.
Inorganic Anion Test Mixture	No known significant effects or critical hazards.
Basic Anion Buffer for CE	No known significant effects or critical hazards.

Skin contact :

Ultra Pure Water for CE	No known significant effects or critical hazards.
Inorganic Anion Test Mixture	No known significant effects or critical hazards.
Basic Anion Buffer for CE	Causes severe burns.

Ingestion :

Ultra Pure Water for CE	No known significant effects or critical hazards.
Inorganic Anion Test Mixture	No known significant effects or critical hazards.
Basic Anion Buffer for CE	Severely corrosive to the digestive tract. Causes severe burns.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact :

Ultra Pure Water for CE	No specific data.
Inorganic Anion Test Mixture	No specific data.
Basic Anion Buffer for CE	Adverse symptoms may include the following: pain watering redness

Inhalation :

Ultra Pure Water for CE	No specific data.
Inorganic Anion Test Mixture	No specific data.
Basic Anion Buffer for CE	No specific data.

Skin contact :

Ultra Pure Water for CE	No specific data.
Inorganic Anion Test Mixture	No specific data.
Basic Anion Buffer for CE	Adverse symptoms may include the following: pain or irritation redness blistering may occur

Section 11. Toxicological information

Ingestion :

Ultra Pure Water for CE	No specific data.
Inorganic Anion Test Mixture	No specific data.
Basic Anion Buffer for CE	Adverse symptoms may include the following: stomach pains

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

General :

Ultra Pure Water for CE	No known significant effects or critical hazards.
Inorganic Anion Test Mixture	No known significant effects or critical hazards.
Basic Anion Buffer for CE	No known significant effects or critical hazards.

Carcinogenicity :

Ultra Pure Water for CE	No known significant effects or critical hazards.
Inorganic Anion Test Mixture	No known significant effects or critical hazards.
Basic Anion Buffer for CE	No known significant effects or critical hazards.

Mutagenicity :

Ultra Pure Water for CE	No known significant effects or critical hazards.
Inorganic Anion Test Mixture	No known significant effects or critical hazards.
Basic Anion Buffer for CE	No known significant effects or critical hazards.

Reproductive toxicity :

Ultra Pure Water for CE	No known significant effects or critical hazards.
Inorganic Anion Test Mixture	No known significant effects or critical hazards.
Basic Anion Buffer for CE	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Inorganic Anion Test Mixture					
Sodium nitrite	85	N/A	N/A	N/A	5.5
Sodium nitrate	1267	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Inorganic Anion Test Mixture			
Sodium nitrite	Acute EC50 159000 µg/l Marine water	Algae - *Tetraselmis chuii*	72 hours
	Acute EC50 1600000 µg/l Marine water	Algae - *Tetraselmis chuii*	96 hours
	Acute LC50 1100 µg/l Fresh water	Crustaceans - *Cherax quadricarinatus*	48 hours
	Acute LC50 18.75 mg/l Fresh water	Daphnia - *Daphnia similoides*	48 hours
	Acute LC50 0.16 µg/l Fresh water	Fish - *Ictalurus punctatus* - Fingerling	96 hours

Section 12. Ecological information

	Chronic NOEC 0.1 mg/l	Daphnia - *Daphnia obtusa* - Neonate	21 days
	Chronic NOEC 0.01 mg/l Fresh water	Fish - *Oncorhynchus mykiss*	28 days
Sodium nitrate	Acute LC50 161 mg/l Fresh water	Crustaceans - *Hyalella azteca* - Adult	48 hours
	Acute LC50 323 mg/l Fresh water	Daphnia - *Daphnia magna* - Neonate	48 hours
	Acute LC50 7.1 mg/l Fresh water	Fish - *Clarias gariepinus*	96 hours
	Chronic NOEC 34.4 mg/l Marine water	Algae - *Hormosira banksii* - Gamete	72 hours
	Chronic NOEC 101.08 mg/l Fresh water	Crustaceans - *Cherax destructor* - Juvenile (Fledgling, Hatchling, Weanling)	21 days
	Chronic NOEC 0.299 mg/l Fresh water	Fish - *Ictalurus punctatus* - Fingerling	200 days
Basic Anion Buffer for CE			
Sodium hydroxide	Acute LC50 125 ppm Fresh water	Fish - *Gambusia affinis* - Adult	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Ultra Pure Water for CE			
water	-	-	Readily
Inorganic Anion Test Mixture			
Sodium nitrate	-	-	Readily
Basic Anion Buffer for CE			
Sodium hydroxide	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Ultra Pure Water for CE			
water	-1.38	-	Low
Inorganic Anion Test Mixture			
Sodium nitrite	-3.7	-	Low
Basic Anion Buffer for CE			
Pyridine-2,3-dicarboxylic acid	-0.12	-	Low

Mobility in soil

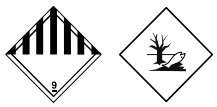
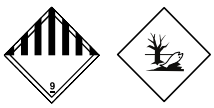
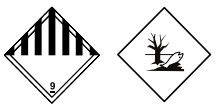
Soil/water partition coefficient (K_{OC}) : Not available.

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or 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.

Section 14. Transport information

	TDG Classification	IMDG	IATA
UN number	UN3082	UN3082	UN3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Sodium nitrite)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Sodium nitrite)	Environmentally hazardous substance, liquid, n.o.s. (Sodium nitrite)
Transport hazard class(es)	9 	9 	9 
Packing group	III	III	III
Environmental hazards	Yes.	Yes.	Yes.

Proof of classification statement : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 9), 2.7 (Marine pollutant mark).

Additional information

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 9), 2.7 (Marine pollutant mark).
Non-bulk packages of this product are not regulated as dangerous goods when transported by road or rail.
Explosive Limit and Limited Quantity Index 5
Special provisions 16, 99

IMDG : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
Emergency schedules F-A, S-F
Special provisions 274, 335, 969

IATA : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.
Quantity limitation Passenger and Cargo Aircraft: 450 L. Packaging instructions: 964. Cargo Aircraft Only: 450 L. Packaging instructions: 964. Limited Quantities - Passenger Aircraft: 30 kg. Packaging instructions: Y964.
Special provisions A97, A158, A197, A215

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.

Section 14. Transport information

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

Canadian lists

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

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

Canada : At least one component is not listed in DSL but all such components are listed in NDSL.

United States : All components are active or exempted.

Section 16. Other information

History

Date of issue/Date of revision : 12/20/2023

Date of previous issue : 04/21/2022

Version : 8

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
HPR = Hazardous Products Regulations
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
UN = United Nations

Procedure used to derive the classification

Section 16. Other information

Classification	Justification
Inorganic Anion Test Mixture	
AQUATIC HAZARD (ACUTE) - Category 1	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 3	Calculation method
Basic Anion Buffer for CE	
SKIN CORROSION - Category 1	On basis of test data
SERIOUS EYE DAMAGE - Category 1	On basis of test data
Health Hazards Not Otherwise Classified - Category 1	On basis of test data

Indicates information that has changed from previously issued version.

Notice to reader

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