

SAFETY DATA SHEET



Organic Acids Solutions Kit

Section 1. Identification

Product identifier	: Organic Acids Solutions Kit		
Part no. (chemical kit)	: 5063-6510, 5063-6510-P		
Part no.	<input checked="" type="checkbox"/> Ultra Pure Water for CE <input type="checkbox"/> Sodium Hydroxide Solution 0.1N for HPCE <input type="checkbox"/> Sodium Hydroxide Solution 1.0N for HPCE <input type="checkbox"/> Organic Acids Buffer Solution pH 5.6 <input type="checkbox"/> Organic Acids Test Sample	5062-8578 5062-8575 5062-8576 8500-6785 8500-6900	

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

Material uses	: <input checked="" type="checkbox"/> Reagents and Standards for Analytical Chemistry Laboratory Use		
	<input checked="" type="checkbox"/> Ultra Pure Water for CE <input type="checkbox"/> Sodium Hydroxide Solution 0.1N for HPCE <input type="checkbox"/> Sodium Hydroxide Solution 1.0N for HPCE <input type="checkbox"/> Organic Acids Buffer Solution pH 5.6 <input type="checkbox"/> Organic Acids Test Sample	500 ml 250 ml 250 ml 250 ml 20 ml	

Supplier/Manufacturer : Agilent Technologies Australia Pty Ltd
 679 Springvale Road
 Mulgrave
 Victoria 3170, Australia
 1800 802 402

Emergency telephone number (with hours of operation) : CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture

Sodium Hydroxide Solution
 0.1N for HPCE




H290 CORROSIVE TO METALS - Category 1

Sodium Hydroxide Solution
 1.0N for HPCE

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

GHS label elements

Section 2. Hazard(s) identification

Hazard pictograms	: Sodium Hydroxide Solution 0.1N for HPCE	
	Sodium Hydroxide Solution 1.0N for HPCE	 
Signal word	: Ultra Pure Water for CE Sodium Hydroxide Solution 0.1N for HPCE Sodium Hydroxide Solution 1.0N for HPCE Organic Acids Buffer Solution pH 5.6 Organic Acids Test Sample	No signal word. WARNING DANGER No signal word. No signal word.
Hazard statements	: Ultra Pure Water for CE Sodium Hydroxide Solution 0.1N for HPCE Sodium Hydroxide Solution 1.0N for HPCE Organic Acids Buffer Solution pH 5.6 Organic Acids Test Sample	No known significant effects or critical hazards. H290 - May be corrosive to metals. H290 - May be corrosive to metals. H318 - Causes serious eye damage. H315 - Causes skin irritation. H335 - May cause respiratory irritation. No known significant effects or critical hazards. No known significant effects or critical hazards.
Precautionary statements		
Prevention	: Ultra Pure Water for CE Sodium Hydroxide Solution 0.1N for HPCE Sodium Hydroxide Solution 1.0N for HPCE Organic Acids Buffer Solution pH 5.6 Organic Acids Test Sample	Not applicable. P234 - Keep only in original container. 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 vapour. P264 - Wash hands thoroughly after handling. Not applicable. Not applicable.
Response	: Ultra Pure Water for CE Sodium Hydroxide Solution 0.1N for HPCE Sodium Hydroxide Solution 1.0N for HPCE Organic Acids Buffer	Not applicable. P390 - Absorb spillage to prevent material damage. P390 - Absorb spillage to prevent material damage. P304 + P340 + P312 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. P302 + P352 + P362 + P363 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing 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. Not applicable.

Section 2. Hazard(s) identification

		Solution pH 5.6	
		Organic Acids Test Sample	Not applicable.
Storage	:	Ultra Pure Water for CE	Not applicable.
		Sodium Hydroxide Solution 0.1N for HPCE	P406 - Store in corrosive resistant container with a resistant inner liner.
		Sodium Hydroxide Solution 1.0N for HPCE	P405 - Store locked up.
			P406 - Store in corrosive resistant container with a resistant inner liner.
		Organic Acids Buffer Solution pH 5.6	Not applicable.
		Organic Acids Test Sample	Not applicable.
Disposal	:	Ultra Pure Water for CE	Not applicable.
		Sodium Hydroxide Solution 0.1N for HPCE	Not applicable.
		Sodium Hydroxide Solution 1.0N for HPCE	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
		Organic Acids Buffer Solution pH 5.6	Not applicable.
		Organic Acids Test Sample	Not applicable.
Supplemental label elements			
Additional warning phrases	:	Ultra Pure Water for CE	Not applicable.
		Sodium Hydroxide Solution 0.1N for HPCE	Not applicable.
		Sodium Hydroxide Solution 1.0N for HPCE	Not applicable.
		Organic Acids Buffer Solution pH 5.6	Not applicable.
		Organic Acids Test Sample	Not applicable.
Other hazards which do not result in classification	:	Ultra Pure Water for CE	None known.
		Sodium Hydroxide Solution 0.1N for HPCE	None known.
		Sodium Hydroxide Solution 1.0N for HPCE	None known.
		Organic Acids Buffer Solution pH 5.6	None known.
		Organic Acids Test Sample	None known.

Section 3. Composition and ingredient information

Substance/mixture	:	Ultra Pure Water for CE	Substance
		Sodium Hydroxide Solution 0.1N for HPCE	Mixture
		Sodium Hydroxide Solution 1.0N for HPCE	Mixture
		Organic Acids Buffer Solution pH 5.6	Mixture
		Organic Acids Test Sample	Mixture

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
Ultra Pure Water for CE Water	100	7732-18-5
Sodium Hydroxide Solution 1.0N for HPCE Sodium hydroxide	≤5	1310-73-2

Section 3. Composition and ingredient information

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

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.
	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. Continue to rinse for at least 10 minutes. 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.
	Organic Acids Buffer Solution pH 5.6	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.
	Organic Acids Test Sample	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	: 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.
	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.
	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.
	Organic Acids Buffer Solution pH 5.6	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Section 4. First aid measures

	Organic Acids Test Sample	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
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.
	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.
	Sodium Hydroxide Solution 1.0N for HPCE	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.
	Organic Acids Buffer Solution pH 5.6	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	Organic Acids Test Sample	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	: 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.
	Sodium Hydroxide Solution 0.1N for HPCE	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 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.
	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

Section 4. First aid measures

Organic Acids Buffer
Solution pH 5.6

clothing such as a collar, tie, belt or waistband. 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.

Organic Acids Test Sample

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact

: Ultra Pure Water for CE No known significant effects or critical hazards.
Sodium Hydroxide Solution 0. No known significant effects or critical hazards.
1N for HPCE
Sodium Hydroxide Solution 1. Causes serious eye damage.
0N for HPCE
Organic Acids Buffer No known significant effects or critical hazards.
Solution pH 5.6
Organic Acids Test Sample No known significant effects or critical hazards.

Inhalation

: Ultra Pure Water for CE No known significant effects or critical hazards.
Sodium Hydroxide Solution 0. No known significant effects or critical hazards.
1N for HPCE
Sodium Hydroxide Solution 1. May cause respiratory irritation.
0N for HPCE
Organic Acids Buffer No known significant effects or critical hazards.
Solution pH 5.6
Organic Acids Test Sample No known significant effects or critical hazards.

Skin contact

: Ultra Pure Water for CE No known significant effects or critical hazards.
Sodium Hydroxide Solution 0. No known significant effects or critical hazards.
1N for HPCE
Sodium Hydroxide Solution 1. Causes skin irritation.
0N for HPCE
Organic Acids Buffer No known significant effects or critical hazards.
Solution pH 5.6
Organic Acids Test Sample No known significant effects or critical hazards.

Ingestion

: Ultra Pure Water for CE No known significant effects or critical hazards.
Sodium Hydroxide Solution 0. No known significant effects or critical hazards.
1N for HPCE
Sodium Hydroxide Solution 1. No known significant effects or critical hazards.
0N for HPCE
Organic Acids Buffer No known significant effects or critical hazards.
Solution pH 5.6
Organic Acids Test Sample No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact

: Ultra Pure Water for CE No specific data.
Sodium Hydroxide Solution 0. No specific data.
1N for HPCE
Sodium Hydroxide Solution 1. Adverse symptoms may include the following:
0N for HPCE
pain
watering
redness
Organic Acids Buffer No specific data.
Solution pH 5.6

Section 4. First aid measures

	Organic Acids Test Sample	No specific data.
Inhalation	: Ultra Pure Water for CE	No specific data.
	Sodium Hydroxide Solution 0.1N for HPCE	No specific data.
	Sodium Hydroxide Solution 1.0N for HPCE	Adverse symptoms may include the following: respiratory tract irritation coughing
	Organic Acids Buffer Solution pH 5.6	No specific data.
Skin contact	: Ultra Pure Water for CE	No specific data.
	Sodium Hydroxide Solution 0.1N for HPCE	No specific data.
	Sodium Hydroxide Solution 1.0N for HPCE	Adverse symptoms may include the following: pain or irritation redness blistering may occur
	Organic Acids Buffer Solution pH 5.6	No specific data.
Ingestion	: Ultra Pure Water for CE	No specific data.
	Sodium Hydroxide Solution 0.1N for HPCE	No specific data.
	Sodium Hydroxide Solution 1.0N for HPCE	Adverse symptoms may include the following: stomach pains
	Organic Acids Buffer Solution pH 5.6	No specific data.
	Organic Acids Test Sample	No specific data.

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.
	Sodium Hydroxide Solution 0.1N for HPCE	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.
	Organic Acids Buffer Solution pH 5.6	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Organic Acids Test Sample	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: Ultra Pure Water for CE	No specific treatment.
	Sodium Hydroxide Solution 0.1N for HPCE	No specific treatment.
	Sodium Hydroxide Solution 1.0N for HPCE	No specific treatment.
	Organic Acids Buffer Solution pH 5.6	No specific treatment.
	Organic Acids Test Sample	No specific treatment.

Section 4. First aid measures

Protection of first-aiders	: <input checked="" type="checkbox"/> Ultra Pure Water for CE	No action shall be taken involving any personal risk or without suitable training.
	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.
	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.
	Organic Acids Buffer Solution pH 5.6	No action shall be taken involving any personal risk or without suitable training.
	Organic Acids Test Sample	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media	: <input checked="" type="checkbox"/> Ultra Pure Water for CE	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.
	Sodium Hydroxide Solution 1.0N for HPCE	Use an extinguishing agent suitable for the surrounding fire.
	Organic Acids Buffer Solution pH 5.6	Use an extinguishing agent suitable for the surrounding fire.
	Organic Acids Test Sample	Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media	: <input checked="" type="checkbox"/> Ultra Pure Water for CE	None known.
	Sodium Hydroxide Solution 0.1N for HPCE	None known.
	Sodium Hydroxide Solution 1.0N for HPCE	None known.
	Organic Acids Buffer Solution pH 5.6	None known.
	Organic Acids Test Sample	None known.

Specific hazards arising from the chemical

: <input checked="" type="checkbox"/> Ultra Pure Water for CE	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.
Sodium Hydroxide Solution 1.0N for HPCE	In a fire or if heated, a pressure increase will occur and the container may burst.
Organic Acids Buffer Solution pH 5.6	In a fire or if heated, a pressure increase will occur and the container may burst.
Organic Acids Test Sample	In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products

: <input checked="" type="checkbox"/> Ultra Pure Water for CE	No specific data.
Sodium Hydroxide Solution 0.1N for HPCE	No specific data.
Sodium Hydroxide Solution 1.0N for HPCE	Decomposition products may include the following materials: metal oxide/oxides
Organic Acids Buffer Solution pH 5.6	No specific data.

Section 5. Firefighting measures

Organic Acids Test Sample No specific data.

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.
	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.
	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.
	Organic Acids Buffer Solution pH 5.6	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.
	Organic Acids Test Sample	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.
	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.
	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.
	Organic Acids Buffer Solution pH 5.6	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Organic Acids Test Sample	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Hazchem code	: Ultra Pure Water for CE	Not available.
	Sodium Hydroxide Solution 0.1N for HPCE	2R
	Sodium Hydroxide Solution 1.0N for HPCE	2R
	Organic Acids Buffer Solution pH 5.6	Not available.
	Organic Acids Test Sample	Not available.

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 spilt material. 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

Section 6. Accidental release measures

		areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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 spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Organic Acids Buffer Solution pH 5.6		No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
Organic Acids Test Sample		No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
For emergency responders :	Ultra Pure Water for CE	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Sodium Hydroxide Solution 0.1N for HPCE		If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Sodium Hydroxide Solution 1.0N for HPCE		If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Organic Acids Buffer Solution pH 5.6		If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Organic Acids Test Sample		If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions :	Ultra Pure Water for CE	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Sodium Hydroxide Solution 0.1N for HPCE		Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Sodium Hydroxide Solution 1.0N for HPCE		Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Organic Acids Buffer		Avoid dispersal of spilt material and runoff and

Section 6. Accidental release measures

Solution pH 5.6	contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Organic Acids Test Sample	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

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.
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. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.
Sodium Hydroxide Solution 1.0N 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. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.
Organic Acids Buffer Solution pH 5.6		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.
Organic Acids Test Sample		Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	: Ultra Pure Water for CE	Put on appropriate personal protective equipment (see Section 8).
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 vapour 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. Absorb spillage to prevent material damage.
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 vapour or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

Section 7. Handling and storage

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.

Organic Acids Buffer
Solution pH 5.6

Put on appropriate personal protective equipment (see Section 8).

Organic Acids Test Sample

Put on appropriate personal protective equipment (see Section 8).

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.

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.

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.

Organic Acids Buffer
Solution pH 5.6

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.

Organic Acids Test Sample

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

:  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 unlabelled 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. Store in corrosive resistant

Section 7. Handling and storage

Sodium Hydroxide Solution 1.0N for HPCE	<p>container with a resistant inner liner. 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p> <p>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 corrosive 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p>
Organic Acids Buffer Solution pH 5.6	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p>
Organic Acids Test Sample	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p>

Section 8. Exposure controls and personal protection

[Control parameters](#)

[Occupational exposure limits](#)

Ingredient name	Exposure limits
Sodium Hydroxide Solution 1.0N for HPCE Sodium hydroxide	Safe Work Australia (Australia, 1/2014). TWA: 2 mg/m ³ 8 hours.

Appropriate engineering controls

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

Section 8. Exposure controls and personal protection

- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Ultra Pure Water for CE Liquid.
Sodium Hydroxide Solution 0. 1N for HPCE Liquid. [Clear.]
Sodium Hydroxide Solution 1. 0N for HPCE Liquid. [Clear.]
Organic Acids Buffer Solution pH 5.6 Liquid.
Organic Acids Test Sample Liquid.
- Colour** : Ultra Pure Water for CE Clear. / Colourless.
Sodium Hydroxide Solution 0. 1N for HPCE Colourless.
Sodium Hydroxide Solution 1. 0N for HPCE Colourless.
Organic Acids Buffer Solution pH 5.6 Colourless.
Organic Acids Test Sample Not available.
- Odour** : Ultra Pure Water for CE Odourless.
Sodium Hydroxide Solution 0. 1N for HPCE Not available.
Sodium Hydroxide Solution 1. 0N for HPCE Not available.
Organic Acids Buffer Solution pH 5.6 Odourless.
Organic Acids Test Sample Not available.

Section 9. Physical and chemical properties

Odour threshold	: Ultra Pure Water for CE	Not available.
	Sodium Hydroxide Solution 0.1N for HPCE	Not available.
	Sodium Hydroxide Solution 1.0N for HPCE	Not available.
	Organic Acids Buffer Solution pH 5.6	Not available.
	Organic Acids Test Sample	Not available.
pH	: Ultra Pure Water for CE	7
	Sodium Hydroxide Solution 0.1N for HPCE	13
	Sodium Hydroxide Solution 1.0N for HPCE	>11.5
	Organic Acids Buffer Solution pH 5.6	5.6
	Organic Acids Test Sample	Not available.
Melting point	: Ultra Pure Water for CE	0°C (32°F)
	Sodium Hydroxide Solution 0.1N for HPCE	0°C (32°F)
	Sodium Hydroxide Solution 1.0N for HPCE	0°C (32°F)
	Organic Acids Buffer Solution pH 5.6	Not available.
	Organic Acids Test Sample	0°C (32°F)
Boiling point	: Ultra Pure Water for CE	100°C (212°F)
	Sodium Hydroxide Solution 0.1N for HPCE	100°C (212°F)
	Sodium Hydroxide Solution 1.0N for HPCE	100°C (212°F)
	Organic Acids Buffer Solution pH 5.6	Not available.
	Organic Acids Test Sample	100°C (212°F)
Flash point	: Ultra Pure Water for CE	Not applicable.
	Sodium Hydroxide Solution 0.1N for HPCE	Not available.
	Sodium Hydroxide Solution 1.0N for HPCE	Not available.
	Organic Acids Buffer Solution pH 5.6	Not available.
	Organic Acids Test Sample	Not available.
Evaporation rate	: Ultra Pure Water for CE	Not available.
	Sodium Hydroxide Solution 0.1N for HPCE	Not available.
	Sodium Hydroxide Solution 1.0N for HPCE	Not available.
	Organic Acids Buffer Solution pH 5.6	Not available.
	Organic Acids Test Sample	Not available.
Flammability (solid, gas)	: Ultra Pure Water for CE	Not applicable.
	Sodium Hydroxide Solution 0.1N for HPCE	Not applicable.
	Sodium Hydroxide Solution 1.0N for HPCE	Not applicable.
	Organic Acids Buffer Solution pH 5.6	Not applicable.
	Organic Acids Test Sample	Not applicable.

Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits	: Ultra Pure Water for CE Not available. Sodium Hydroxide Solution 0. Not available. 1N for HPCE Sodium Hydroxide Solution 1. Not available. 0N for HPCE Organic Acids Buffer Not available. Solution pH 5.6 Organic Acids Test Sample Not available.
Vapour pressure	: Ultra Pure Water for CE 3.2 kPa (23.8 mm Hg) [room temperature] Sodium Hydroxide Solution 0. <2.4 kPa (<18 mm Hg) [room temperature] 1N for HPCE Sodium Hydroxide Solution 1. <2.4 kPa (<18 mm Hg) [room temperature] 0N for HPCE Organic Acids Buffer Not available. Solution pH 5.6 Organic Acids Test Sample Not available.
Vapour density	: Ultra Pure Water for CE 0.62 [Air = 1] Sodium Hydroxide Solution 0. <1 [Air = 1] 1N for HPCE Sodium Hydroxide Solution 1. <1 [Air = 1] 0N for HPCE Organic Acids Buffer Not available. Solution pH 5.6 Organic Acids Test Sample Not available.
Relative density	: Ultra Pure Water for CE 1 Sodium Hydroxide Solution 0. Not available. 1N for HPCE Sodium Hydroxide Solution 1. Not available. 0N for HPCE Organic Acids Buffer 0.999 Solution pH 5.6 Organic Acids Test Sample Not available.
Solubility	: Ultra Pure Water for CE Easily soluble in the following materials: cold water and hot water. Sodium Hydroxide Solution 0. Easily soluble in the following materials: cold water and hot water. 1N for HPCE Sodium Hydroxide Solution 1. Easily soluble in the following materials: cold water and hot water. 0N for HPCE Organic Acids Buffer Easily soluble in the following materials: cold water and hot water. Solution pH 5.6 Organic Acids Test Sample Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Ultra Pure Water for CE -1.38 Sodium Hydroxide Solution 0. Not available. 1N for HPCE Sodium Hydroxide Solution 1. Not available. 0N for HPCE Organic Acids Buffer Not available. Solution pH 5.6 Organic Acids Test Sample Not available.
Auto-ignition temperature	: Ultra Pure Water for CE Not applicable. Sodium Hydroxide Solution 0. Not available. 1N for HPCE Sodium Hydroxide Solution 1. Not available. 0N for HPCE Organic Acids Buffer Not available. Solution pH 5.6 Organic Acids Test Sample Not available.

Section 9. Physical and chemical properties

Decomposition temperature	: Ultra Pure Water for CE	Not available.
	Sodium Hydroxide Solution 0.1N for HPCE	Not available.
	Sodium Hydroxide Solution 1.0N for HPCE	Not available.
	Organic Acids Buffer Solution pH 5.6	Not available.
	Organic Acids Test Sample	Not available.
Viscosity	: Ultra Pure Water for CE	Not available.
	Sodium Hydroxide Solution 0.1N for HPCE	Not available.
	Sodium Hydroxide Solution 1.0N for HPCE	Not available.
	Organic Acids Buffer Solution pH 5.6	Not available.
	Organic Acids Test Sample	Not available.

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.
	Sodium Hydroxide Solution 0.1N for HPCE	No specific test data related to reactivity available for this product or its ingredients.
	Sodium Hydroxide Solution 1.0N for HPCE	No specific test data related to reactivity available for this product or its ingredients.
	Organic Acids Buffer Solution pH 5.6	No specific test data related to reactivity available for this product or its ingredients.
	Organic Acids Test Sample	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.
	Sodium Hydroxide Solution 0.1N for HPCE	The product is stable.
	Sodium Hydroxide Solution 1.0N for HPCE	The product is stable.
	Organic Acids Buffer Solution pH 5.6	The product is stable.
	Organic Acids Test Sample	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.
	Sodium Hydroxide Solution 0.1N for HPCE	Under normal conditions of storage and use, hazardous reactions will not occur.
	Sodium Hydroxide Solution 1.0N for HPCE	Under normal conditions of storage and use, hazardous reactions will not occur.
	Organic Acids Buffer Solution pH 5.6	Under normal conditions of storage and use, hazardous reactions will not occur.
	Organic Acids Test Sample	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Ultra Pure Water for CE	No specific data.
	Sodium Hydroxide Solution 0.1N for HPCE	No specific data.
	Sodium Hydroxide Solution 1.0N for HPCE	No specific data.
	Organic Acids Buffer Solution pH 5.6	No specific data.
	Organic Acids Test Sample	No specific data.

Section 10. Stability and reactivity

Incompatible materials	:	Ultra Pure Water for CE	May react or be incompatible with oxidising materials.
		Sodium Hydroxide Solution 0.1N for HPCE	Reactive or incompatible with the following materials: acids metals
	:	Sodium Hydroxide Solution 1.0N for HPCE	Reactive or incompatible with the following materials: acids metals
		Organic Acids Buffer Solution pH 5.6	May react or be incompatible with oxidising materials.
Hazardous decomposition products	:	Ultra Pure Water for CE	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.
	:	Sodium Hydroxide Solution 1.0N for HPCE	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
		Organic Acids Buffer Solution pH 5.6	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	:	Organic Acids Test Sample	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
Sodium Hydroxide Solution 1.0N for HPCE Sodium hydroxide	LD50 Dermal	Rabbit	1350 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Sodium Hydroxide Solution 1.0N for HPCE 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	-

Sensitisation

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Section 11. Toxicological information

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Sodium Hydroxide Solution 1.0N for HPCE 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 likely routes of exposure :

- Ultra Pure Water for CE : Not available.
- Sodium Hydroxide Solution 0.1N for HPCE : Routes of entry anticipated: Oral, Dermal, Inhalation.
- Sodium Hydroxide Solution 1.0N for HPCE : Routes of entry anticipated: Oral, Dermal, Inhalation.
- Organic Acids Buffer Solution pH 5.6 : Not available.
- Organic Acids Test Sample : Not available.

Potential acute health effects

Eye contact :

- Ultra Pure Water for CE : No known significant effects or critical hazards.
- Sodium Hydroxide Solution 0.1N for HPCE : No known significant effects or critical hazards.
- Sodium Hydroxide Solution 1.0N for HPCE : Causes serious eye damage.
- Organic Acids Buffer Solution pH 5.6 : No known significant effects or critical hazards.
- Organic Acids Test Sample : No known significant effects or critical hazards.

Inhalation :

- Ultra Pure Water for CE : No known significant effects or critical hazards.
- Sodium Hydroxide Solution 0.1N for HPCE : No known significant effects or critical hazards.
- Sodium Hydroxide Solution 1.0N for HPCE : May cause respiratory irritation.
- Organic Acids Buffer Solution pH 5.6 : No known significant effects or critical hazards.
- Organic Acids Test Sample : No known significant effects or critical hazards.

Skin contact :

- Ultra Pure Water for CE : No known significant effects or critical hazards.
- Sodium Hydroxide Solution 0.1N for HPCE : No known significant effects or critical hazards.
- Sodium Hydroxide Solution 1.0N for HPCE : Causes skin irritation.
- Organic Acids Buffer Solution pH 5.6 : No known significant effects or critical hazards.
- Organic Acids Test Sample : No known significant effects or critical hazards.

Ingestion :

- Ultra Pure Water for CE : No known significant effects or critical hazards.
- Sodium Hydroxide Solution 0.1N for HPCE : No known significant effects or critical hazards.
- Sodium Hydroxide Solution 1.0N for HPCE : No known significant effects or critical hazards.
- Organic Acids Buffer Solution pH 5.6 : No known significant effects or critical hazards.
- Organic Acids Test Sample : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Section 11. Toxicological information

Eye contact	:	Ultra Pure Water for CE	No specific data.
		Sodium Hydroxide Solution 0.1N for HPCE	No specific data.
		Sodium Hydroxide Solution 1.0N for HPCE	Adverse symptoms may include the following: pain watering redness
		Organic Acids Buffer Solution pH 5.6	No specific data.
Inhalation	:	Ultra Pure Water for CE	No specific data.
		Sodium Hydroxide Solution 0.1N for HPCE	No specific data.
		Sodium Hydroxide Solution 1.0N for HPCE	Adverse symptoms may include the following: respiratory tract irritation coughing
		Organic Acids Buffer Solution pH 5.6	No specific data.
Skin contact	:	Ultra Pure Water for CE	No specific data.
		Sodium Hydroxide Solution 0.1N for HPCE	No specific data.
		Sodium Hydroxide Solution 1.0N for HPCE	Adverse symptoms may include the following: pain or irritation redness blistering may occur
		Organic Acids Buffer Solution pH 5.6	No specific data.
Ingestion	:	Ultra Pure Water for CE	No specific data.
		Sodium Hydroxide Solution 0.1N for HPCE	No specific data.
		Sodium Hydroxide Solution 1.0N for HPCE	Adverse symptoms may include the following: stomach pains
		Organic Acids Buffer Solution pH 5.6	No specific data.
		Organic Acids Test Sample	No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General :

Ultra Pure Water for CE	No known significant effects or critical hazards.
Sodium Hydroxide Solution 0.1N for HPCE	No known significant effects or critical hazards.
Sodium Hydroxide Solution 1.0N for HPCE	No known significant effects or critical hazards.
Organic Acids Buffer Solution pH 5.6	No known significant effects or critical hazards.
Organic Acids Test Sample	No known significant effects or critical hazards.

Section 11. Toxicological information

Carcinogenicity	:	Ultra Pure Water for CE	No known significant effects or critical hazards.
		Sodium Hydroxide Solution 0.1N for HPCE	No known significant effects or critical hazards.
		Sodium Hydroxide Solution 1.0N for HPCE	No known significant effects or critical hazards.
		Organic Acids Buffer Solution pH 5.6	No known significant effects or critical hazards.
		Organic Acids Test Sample	No known significant effects or critical hazards.
Mutagenicity	:	Ultra Pure Water for CE	No known significant effects or critical hazards.
		Sodium Hydroxide Solution 0.1N for HPCE	No known significant effects or critical hazards.
		Sodium Hydroxide Solution 1.0N for HPCE	No known significant effects or critical hazards.
		Organic Acids Buffer Solution pH 5.6	No known significant effects or critical hazards.
		Organic Acids Test Sample	No known significant effects or critical hazards.
Teratogenicity	:	Ultra Pure Water for CE	No known significant effects or critical hazards.
		Sodium Hydroxide Solution 0.1N for HPCE	No known significant effects or critical hazards.
		Sodium Hydroxide Solution 1.0N for HPCE	No known significant effects or critical hazards.
		Organic Acids Buffer Solution pH 5.6	No known significant effects or critical hazards.
		Organic Acids Test Sample	No known significant effects or critical hazards.
Developmental effects	:	Ultra Pure Water for CE	No known significant effects or critical hazards.
		Sodium Hydroxide Solution 0.1N for HPCE	No known significant effects or critical hazards.
		Sodium Hydroxide Solution 1.0N for HPCE	No known significant effects or critical hazards.
		Organic Acids Buffer Solution pH 5.6	No known significant effects or critical hazards.
		Organic Acids Test Sample	No known significant effects or critical hazards.
Fertility effects	:	Ultra Pure Water for CE	No known significant effects or critical hazards.
		Sodium Hydroxide Solution 0.1N for HPCE	No known significant effects or critical hazards.
		Sodium Hydroxide Solution 1.0N for HPCE	No known significant effects or critical hazards.
		Organic Acids Buffer Solution pH 5.6	No known significant effects or critical hazards.
		Organic Acids Test Sample	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Sodium Hydroxide Solution 1.0N for HPCE Sodium hydroxide	Acute LC50 125 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours

Persistence and degradability

Section 12. Ecological information

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

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Ultra Pure Water for CE Water	-1.38	-	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 minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	ADG	IMDG	IATA
UN number	UN3316	UN3316	UN3316
UN proper shipping name	CHEMICAL KIT	CHEMICAL KIT	Chemical kit
Transport hazard class(es)			
Packing group	II	II	II
Environmental hazards	No.	No.	No.

Additional information

ADG : Hazchem code 2Z
Special provisions 251, 340

IMDG : Emergency schedules F-A, _S-P_
Special provisions 251, 340

Section 14. Transport information

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

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

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

Section 15. Regulatory information

Standard Uniform Schedule of Medicine and Poisons

5

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

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	: All components are listed or exempted.
Canada	: All components are listed or exempted.
China	: All components are listed or exempted.
Europe	: All components are listed or exempted.
Japan	: Japan inventory (ENCS): All components are listed or exempted. Japan inventory (ISHL): All components are listed or exempted.
Malaysia	: Not determined.
New Zealand	: All components are listed or exempted.
Philippines	: All components are listed or exempted.
Republic of Korea	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.
Thailand	: <input checked="" type="checkbox"/> Not determined.
Turkey	: Not determined.
United States	: All components are listed or exempted.
Viet Nam	: <input checked="" type="checkbox"/> Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 13/03/2018

Date of previous issue : 01/04/2016

Version : 5

Key to abbreviations

: ADG = Australian Dangerous Goods
 ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 NOHSC = National Occupational Health and Safety Commission
 SUSMP = Standard Uniform Schedule of Medicine and Poisons
 UN = United Nations

Procedure used to derive the classification

Classification	Justification
<input checked="" type="checkbox"/> Sodium Hydroxide Solution 0.1N for HPCE Met. Corr. 1, H290	Expert judgment
<input type="checkbox"/> Sodium Hydroxide Solution 1.0N for HPCE Met. Corr. 1, H290 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335	Expert judgment Expert judgment Expert judgment Expert judgment

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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