

SAFETY DATA SHEET



OneSeq Phased Exome Target Enrichment Box 1, 96 reactions, Part Number
5190-9555

Section 1. Identification

1.1 Product identifier

Product name : OneSeq Phased Exome Target Enrichment Box 1, 96 reactions, Part Number 5190-9555

Part No. (Chemical Kit) : 5190-9555

Part No. :

OneSeq Hyb 1	5190-9551
OneSeq Hyb 2	5190-9545
OneSeq Hyb 4	5190-9546
OneSeq Binding Buffer	5190-9552
OneSeq Wash Buffer 1	5190-9553
OneSeq Wash Buffer 2	5190-9554

Validation date : 10/20/2016

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

Material uses : Analytical reagent.

OneSeq Hyb 1	2.4 ml
OneSeq Hyb 2	1.25 ml
OneSeq Hyb 4	1.25 ml
OneSeq Binding Buffer	80 ml
OneSeq Wash Buffer 1	48 ml
OneSeq Wash Buffer 2	144 ml

1.3 Details of the supplier of the safety data sheet

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

1.4 Emergency telephone number

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

Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status :	OneSeq Hyb 1	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	OneSeq Hyb 2	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	OneSeq Hyb 4	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	OneSeq Binding Buffer	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	OneSeq Wash Buffer 1	While this material is not considered hazardous by the

Section 2. Hazards identification

OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

OneSeq Wash Buffer 2

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture

OneSeq Hyb 1

H319 EYE IRRITATION - Category 2A

OneSeq Hyb 2

H319 EYE IRRITATION - Category 2A

2.2 GHS label elements

Hazard pictograms

:



Signal word

:

OneSeq Hyb 1
OneSeq Hyb 2
OneSeq Hyb 4
OneSeq Binding Buffer
OneSeq Wash Buffer 1
OneSeq Wash Buffer 2

Warning
Warning
No signal word.
No signal word.
No signal word.
No signal word.

Hazard statements

:

OneSeq Hyb 1

OneSeq Hyb 2

OneSeq Hyb 4
OneSeq Binding Buffer
OneSeq Wash Buffer 1
OneSeq Wash Buffer 2

GHS SYMBOL - **Exclamation mark** -
H319 - Causes serious eye irritation.
GHS SYMBOL - **Exclamation mark** -
H319 - Causes serious eye irritation.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.

Precautionary statements

Prevention

:

OneSeq Hyb 1

OneSeq Hyb 2

OneSeq Hyb 4
OneSeq Binding Buffer
OneSeq Wash Buffer 1
OneSeq Wash Buffer 2

P280 - Wear eye or face protection.
P264 - Wash hands thoroughly after handling.
P280 - Wear eye or face protection.
P264 - Wash hands thoroughly after handling.
Not applicable.
Not applicable.
Not applicable.
Not applicable.

Response

:

OneSeq Hyb 1

OneSeq Hyb 2

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical attention.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

Section 2. Hazards identification

rinsing.
P337 + P313 - If eye irritation persists: Get medical attention.

	OneSeq Hyb 4	Not applicable.
	OneSeq Binding Buffer	Not applicable.
	OneSeq Wash Buffer 1	Not applicable.
	OneSeq Wash Buffer 2	Not applicable.
Storage	: OneSeq Hyb 1	Not applicable.
	OneSeq Hyb 2	Not applicable.
	OneSeq Hyb 4	Not applicable.
	OneSeq Binding Buffer	Not applicable.
	OneSeq Wash Buffer 1	Not applicable.
	OneSeq Wash Buffer 2	Not applicable.
Disposal	: OneSeq Hyb 1	Not applicable.
	OneSeq Hyb 2	Not applicable.
	OneSeq Hyb 4	Not applicable.
	OneSeq Binding Buffer	Not applicable.
	OneSeq Wash Buffer 1	Not applicable.
	OneSeq Wash Buffer 2	Not applicable.
Supplemental label elements	: OneSeq Hyb 1	None known.
	OneSeq Hyb 2	None known.
	OneSeq Hyb 4	None known.
	OneSeq Binding Buffer	None known.
	OneSeq Wash Buffer 1	None known.
	OneSeq Wash Buffer 2	None known.

2.3 Other hazards

Hazards not otherwise classified	: OneSeq Hyb 1	None known.
	OneSeq Hyb 2	None known.
	OneSeq Hyb 4	None known.
	OneSeq Binding Buffer	None known.
	OneSeq Wash Buffer 1	None known.
	OneSeq Wash Buffer 2	None known.

Section 3. Composition/information on ingredients

Substance/mixture	: OneSeq Hyb 1	Mixture
	OneSeq Hyb 2	Mixture
	OneSeq Hyb 4	Mixture
	OneSeq Binding Buffer	Mixture
	OneSeq Wash Buffer 1	Mixture
	OneSeq Wash Buffer 2	Mixture

Ingredient name	%	CAS number
OneSeq Hyb 1 Sodium chloride	≥10 - ≤25	7647-14-5
Sodium dihydrogenorthophosphate	≤3	7558-80-7
OneSeq Hyb 2 Edetic acid	≥10 - ≤25	60-00-4
OneSeq Binding Buffer Sodium chloride	<10	7647-14-5

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

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

Section 3. Composition/information on ingredients

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

Section 4. First aid measures

4.1 Description of necessary first aid measures

Eye contact	: OneSeq Hyb 1	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.
	OneSeq Hyb 2	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.
	OneSeq Hyb 4	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.
	OneSeq Binding Buffer	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.
	OneSeq Wash Buffer 1	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.
	OneSeq Wash Buffer 2	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	: OneSeq Hyb 1	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.
	OneSeq Hyb 2	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. 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.

Section 4. First aid measures

	OneSeq Hyb 4	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	OneSeq Binding Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	OneSeq Wash Buffer 1	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	OneSeq Wash Buffer 2	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: OneSeq Hyb 1	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.
	OneSeq Hyb 2	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.
	OneSeq Hyb 4	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	OneSeq Binding Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	OneSeq Wash Buffer 1	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	OneSeq Wash Buffer 2	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: OneSeq Hyb 1	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.
	OneSeq Hyb 2	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

Section 4. First aid measures

OneSeq Hyb 4	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. 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.
OneSeq Binding Buffer	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.
OneSeq Wash Buffer 1	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.
OneSeq Wash Buffer 2	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: OneSeq Hyb 1 OneSeq Hyb 2 OneSeq Hyb 4 OneSeq Binding Buffer OneSeq Wash Buffer 1 OneSeq Wash Buffer 2	Causes serious eye irritation. Causes serious eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Inhalation	: OneSeq Hyb 1 OneSeq Hyb 2 OneSeq Hyb 4 OneSeq Binding Buffer OneSeq Wash Buffer 1 OneSeq Wash Buffer 2	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: OneSeq Hyb 1 OneSeq Hyb 2 OneSeq Hyb 4 OneSeq Binding Buffer OneSeq Wash Buffer 1 OneSeq Wash Buffer 2	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Section 4. First aid measures

Ingestion	:	OneSeq Hyb 1	No known significant effects or critical hazards.
		OneSeq Hyb 2	No known significant effects or critical hazards.
		OneSeq Hyb 4	No known significant effects or critical hazards.
		OneSeq Binding Buffer	No known significant effects or critical hazards.
		OneSeq Wash Buffer 1	No known significant effects or critical hazards.
		OneSeq Wash Buffer 2	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	:	OneSeq Hyb 1	Adverse symptoms may include the following: pain or irritation watering redness
		OneSeq Hyb 2	Adverse symptoms may include the following: pain or irritation watering redness
		OneSeq Hyb 4	No specific data.
		OneSeq Binding Buffer	No specific data.
		OneSeq Wash Buffer 1	No specific data.
		OneSeq Wash Buffer 2	No specific data.

Inhalation	:	OneSeq Hyb 1	No specific data.
		OneSeq Hyb 2	No specific data.
		OneSeq Hyb 4	No specific data.
		OneSeq Binding Buffer	No specific data.
		OneSeq Wash Buffer 1	No specific data.
		OneSeq Wash Buffer 2	No specific data.

Skin contact	:	OneSeq Hyb 1	No specific data.
		OneSeq Hyb 2	No specific data.
		OneSeq Hyb 4	No specific data.
		OneSeq Binding Buffer	No specific data.
		OneSeq Wash Buffer 1	No specific data.
		OneSeq Wash Buffer 2	No specific data.

Ingestion	:	OneSeq Hyb 1	No specific data.
		OneSeq Hyb 2	No specific data.
		OneSeq Hyb 4	No specific data.
		OneSeq Binding Buffer	No specific data.
		OneSeq Wash Buffer 1	No specific data.
		OneSeq Wash Buffer 2	No specific data.

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

Notes to physician	:	OneSeq Hyb 1	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		OneSeq Hyb 2	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.
		OneSeq Hyb 4	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		OneSeq Binding Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		OneSeq Wash Buffer 1	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		OneSeq Wash Buffer 2	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Section 4. First aid measures

Specific treatments	: OneSeq Hyb 1 OneSeq Hyb 2 OneSeq Hyb 4 OneSeq Binding Buffer OneSeq Wash Buffer 1 OneSeq Wash Buffer 2	ingested or inhaled. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment.
Protection of first-aiders	: OneSeq Hyb 1 OneSeq Hyb 2 OneSeq Hyb 4 OneSeq Binding Buffer OneSeq Wash Buffer 1 OneSeq Wash Buffer 2	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. 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. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	: OneSeq Hyb 1 OneSeq Hyb 2 OneSeq Hyb 4 OneSeq Binding Buffer OneSeq Wash Buffer 1 OneSeq Wash Buffer 2	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: OneSeq Hyb 1 OneSeq Hyb 2 OneSeq Hyb 4 OneSeq Binding Buffer OneSeq Wash Buffer 1 OneSeq Wash Buffer 2	None known. None known. None known. None known. None known. None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	: OneSeq Hyb 1 OneSeq Hyb 2 OneSeq Hyb 4 OneSeq Binding Buffer	In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst.
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Section 5. Fire-fighting measures

	OneSeq Wash Buffer 1	In a fire or if heated, a pressure increase will occur and the container may burst.
	OneSeq Wash Buffer 2	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: OneSeq Hyb 1	Decomposition products may include the following materials: phosphorus oxides halogenated compounds metal oxide/oxides
	OneSeq Hyb 2	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
	OneSeq Hyb 4	No specific data.
	OneSeq Binding Buffer	Decomposition products may include the following materials: halogenated compounds metal oxide/oxides
	OneSeq Wash Buffer 1	No specific data.
	OneSeq Wash Buffer 2	No specific data.

5.3 Advice for firefighters

Special protective actions for fire-fighters

	: OneSeq Hyb 1	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.
	OneSeq Hyb 2	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.
	OneSeq Hyb 4	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.
	OneSeq Binding Buffer	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.
	OneSeq Wash Buffer 1	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.
	OneSeq Wash Buffer 2	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

	: OneSeq Hyb 1	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	OneSeq Hyb 2	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	OneSeq Hyb 4	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive

Section 5. Fire-fighting measures

OneSeq Binding Buffer	pressure mode. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
OneSeq Wash Buffer 1	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
OneSeq Wash Buffer 2	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: OneSeq Hyb 1

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

OneSeq Hyb 2

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

OneSeq Hyb 4

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.

OneSeq Binding Buffer

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.

OneSeq Wash Buffer 1

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.

OneSeq Wash Buffer 2

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.

Section 6. Accidental release measures

For emergency responders	: OneSeq Hyb 1	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".
	OneSeq Hyb 2	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".
	OneSeq Hyb 4	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".
	OneSeq Binding Buffer	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".
	OneSeq Wash Buffer 1	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".
	OneSeq Wash Buffer 2	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".
6.2 Environmental precautions	: OneSeq Hyb 1	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).
	OneSeq Hyb 2	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).
	OneSeq Hyb 4	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).
	OneSeq Binding Buffer	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).
	OneSeq Wash Buffer 1	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).
	OneSeq Wash Buffer 2	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Section 6. Accidental release measures

Methods for cleaning up	: OneSeq Hyb 1	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.
	OneSeq Hyb 2	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.
	OneSeq Hyb 4	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.
	OneSeq Binding Buffer	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.
	OneSeq Wash Buffer 1	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.
	OneSeq Wash Buffer 2	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures	: OneSeq Hyb 1	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	OneSeq Hyb 2	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	OneSeq Hyb 4	Put on appropriate personal protective equipment (see Section 8).
	OneSeq Binding Buffer	Put on appropriate personal protective equipment

Section 7. Handling and storage

	OneSeq Wash Buffer 1	(see Section 8). Put on appropriate personal protective equipment (see Section 8).
	OneSeq Wash Buffer 2	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: OneSeq Hyb 1	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.
	OneSeq Hyb 2	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.
	OneSeq Hyb 4	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.
	OneSeq Binding Buffer	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.
	OneSeq Wash Buffer 1	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.
	OneSeq Wash Buffer 2	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
7.2 Conditions for safe storage, including any incompatibilities	: OneSeq Hyb 1	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.

Section 7. Handling and storage

OneSeq Hyb 2	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.
OneSeq Hyb 4	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.
OneSeq Binding Buffer	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.
OneSeq Wash Buffer 1	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.
OneSeq Wash Buffer 2	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations

OneSeq Hyb 1	Industrial applications, Professional applications.
OneSeq Hyb 2	Industrial applications, Professional applications.
OneSeq Hyb 4	Industrial applications, Professional applications.
OneSeq Binding Buffer	Industrial applications, Professional applications.
OneSeq Wash Buffer 1	Industrial applications, Professional applications.
OneSeq Wash Buffer 2	Industrial applications, Professional applications.

Section 7. Handling and storage

Industrial sector specific solutions	: OneSeq Hyb 1	Not applicable.
	OneSeq Hyb 2	Not applicable.
	OneSeq Hyb 4	Not applicable.
	OneSeq Binding Buffer	Not applicable.
	OneSeq Wash Buffer 1	Not applicable.
	OneSeq Wash Buffer 2	Not applicable.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
OneSeq Hyb 1 Sodium chloride Sodium dihydrogenorthophosphate	None. None.
OneSeq Hyb 2 Edetic acid	None.
OneSeq Binding Buffer Sodium chloride	None.

8.2 Exposure controls

Appropriate engineering controls

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

Environmental exposure controls

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

Individual protection measures

Hygiene measures

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

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.

Section 8. Exposure controls/personal protection

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	OneSeq Hyb 1	Liquid.
		OneSeq Hyb 2	Liquid.
		OneSeq Hyb 4	Liquid.
		OneSeq Binding Buffer	Liquid.
		OneSeq Wash Buffer 1	Liquid.
		OneSeq Wash Buffer 2	Liquid.
Color	:	OneSeq Hyb 1	Not available.
		OneSeq Hyb 2	Not available.
		OneSeq Hyb 4	Not available.
		OneSeq Binding Buffer	Not available.
		OneSeq Wash Buffer 1	Not available.
		OneSeq Wash Buffer 2	Not available.
Odor	:	OneSeq Hyb 1	Not available.
		OneSeq Hyb 2	Not available.
		OneSeq Hyb 4	Not available.
		OneSeq Binding Buffer	Not available.
		OneSeq Wash Buffer 1	Not available.
		OneSeq Wash Buffer 2	Not available.
Odor threshold	:	OneSeq Hyb 1	Not available.
		OneSeq Hyb 2	Not available.
		OneSeq Hyb 4	Not available.
		OneSeq Binding Buffer	Not available.
		OneSeq Wash Buffer 1	Not available.
		OneSeq Wash Buffer 2	Not available.
pH	:	OneSeq Hyb 1	7.4
		OneSeq Hyb 2	8
		OneSeq Hyb 4	Not available.
		OneSeq Binding Buffer	7.5
		OneSeq Wash Buffer 1	7
		OneSeq Wash Buffer 2	7
Melting point	:	OneSeq Hyb 1	Not available.
		OneSeq Hyb 2	Not available.
		OneSeq Hyb 4	0°C (32°F)
		OneSeq Binding Buffer	Not available.
		OneSeq Wash Buffer 1	0°C (32°F)
		OneSeq Wash Buffer 2	0°C (32°F)
Boiling point	:	OneSeq Hyb 1	Not available.
		OneSeq Hyb 2	Not available.
		OneSeq Hyb 4	100°C (212°F)
		OneSeq Binding Buffer	Not available.
		OneSeq Wash Buffer 1	100°C (212°F)
		OneSeq Wash Buffer 2	100°C (212°F)

Section 9. Physical and chemical properties

Flash point	: OneSeq Hyb 1	Not available.
	OneSeq Hyb 2	Not available.
	OneSeq Hyb 4	Not available.
	OneSeq Binding Buffer	Not available.
	OneSeq Wash Buffer 1	Not available.
	OneSeq Wash Buffer 2	Not available.
Evaporation rate	: OneSeq Hyb 1	Not available.
	OneSeq Hyb 2	Not available.
	OneSeq Hyb 4	Not available.
	OneSeq Binding Buffer	Not available.
	OneSeq Wash Buffer 1	Not available.
	OneSeq Wash Buffer 2	Not available.
Flammability (solid, gas)	: OneSeq Hyb 1	Not applicable.
	OneSeq Hyb 2	Not applicable.
	OneSeq Hyb 4	Not applicable.
	OneSeq Binding Buffer	Not applicable.
	OneSeq Wash Buffer 1	Not applicable.
	OneSeq Wash Buffer 2	Not applicable.
Lower and upper explosive (flammable) limits	: OneSeq Hyb 1	Not available.
	OneSeq Hyb 2	Not available.
	OneSeq Hyb 4	Not available.
	OneSeq Binding Buffer	Not available.
	OneSeq Wash Buffer 1	Not available.
	OneSeq Wash Buffer 2	Not available.
Vapor pressure	: OneSeq Hyb 1	Not available.
	OneSeq Hyb 2	Not available.
	OneSeq Hyb 4	Not available.
	OneSeq Binding Buffer	Not available.
	OneSeq Wash Buffer 1	Not available.
	OneSeq Wash Buffer 2	Not available.
Vapor density	: OneSeq Hyb 1	Not available.
	OneSeq Hyb 2	Not available.
	OneSeq Hyb 4	Not available.
	OneSeq Binding Buffer	Not available.
	OneSeq Wash Buffer 1	Not available.
	OneSeq Wash Buffer 2	Not available.
Relative density	: OneSeq Hyb 1	Not available.
	OneSeq Hyb 2	Not available.
	OneSeq Hyb 4	Not available.
	OneSeq Binding Buffer	Not available.
	OneSeq Wash Buffer 1	Not available.
	OneSeq Wash Buffer 2	Not available.
Solubility	: OneSeq Hyb 1	Soluble in the following materials: cold water and hot water.
	OneSeq Hyb 2	Soluble in the following materials: cold water and hot water.
	OneSeq Hyb 4	Easily soluble in the following materials: cold water and hot water.
	OneSeq Binding Buffer	Soluble in the following materials: cold water and hot water.
	OneSeq Wash Buffer 1	Easily soluble in the following materials: cold water and hot water.
	OneSeq Wash Buffer 2	Easily soluble in the following materials: cold water and hot water.

Section 9. Physical and chemical properties

Partition coefficient: n-octanol/water	: OneSeq Hyb 1	Not available.
	OneSeq Hyb 2	Not available.
	OneSeq Hyb 4	Not available.
	OneSeq Binding Buffer	Not available.
	OneSeq Wash Buffer 1	Not available.
	OneSeq Wash Buffer 2	Not available.
Auto-ignition temperature	: OneSeq Hyb 1	Not available.
	OneSeq Hyb 2	Not available.
	OneSeq Hyb 4	Not available.
	OneSeq Binding Buffer	Not available.
	OneSeq Wash Buffer 1	Not available.
	OneSeq Wash Buffer 2	Not available.
Decomposition temperature	: OneSeq Hyb 1	Not available.
	OneSeq Hyb 2	Not available.
	OneSeq Hyb 4	Not available.
	OneSeq Binding Buffer	Not available.
	OneSeq Wash Buffer 1	Not available.
	OneSeq Wash Buffer 2	Not available.
Viscosity	: OneSeq Hyb 1	Not available.
	OneSeq Hyb 2	Not available.
	OneSeq Hyb 4	Not available.
	OneSeq Binding Buffer	Not available.
	OneSeq Wash Buffer 1	Not available.
	OneSeq Wash Buffer 2	Not available.

Section 10. Stability and reactivity

10.1 Reactivity	: OneSeq Hyb 1	No specific test data related to reactivity available for this product or its ingredients.
	OneSeq Hyb 2	No specific test data related to reactivity available for this product or its ingredients.
	OneSeq Hyb 4	No specific test data related to reactivity available for this product or its ingredients.
	OneSeq Binding Buffer	No specific test data related to reactivity available for this product or its ingredients.
	OneSeq Wash Buffer 1	No specific test data related to reactivity available for this product or its ingredients.
	OneSeq Wash Buffer 2	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: OneSeq Hyb 1	The product is stable.
	OneSeq Hyb 2	The product is stable.
	OneSeq Hyb 4	The product is stable.
	OneSeq Binding Buffer	The product is stable.
	OneSeq Wash Buffer 1	The product is stable.
	OneSeq Wash Buffer 2	The product is stable.
10.3 Possibility of hazardous reactions	: OneSeq Hyb 1	Under normal conditions of storage and use, hazardous reactions will not occur.
	OneSeq Hyb 2	Under normal conditions of storage and use, hazardous reactions will not occur.
	OneSeq Hyb 4	Under normal conditions of storage and use, hazardous reactions will not occur.
	OneSeq Binding Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
	OneSeq Wash Buffer 1	Under normal conditions of storage and use, hazardous reactions will not occur.
		Under normal conditions of storage and use, hazardous reactions will not occur.

Section 10. Stability and reactivity

OneSeq Wash Buffer 2

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

: OneSeq Hyb 1 No specific data.
 OneSeq Hyb 2 No specific data.
 OneSeq Hyb 4 No specific data.
 OneSeq Binding Buffer No specific data.
 OneSeq Wash Buffer 1 No specific data.
 OneSeq Wash Buffer 2 No specific data.

10.5 Incompatible materials

: OneSeq Hyb 1 May react or be incompatible with oxidizing materials.
 OneSeq Hyb 2 May react or be incompatible with oxidizing materials.
 OneSeq Hyb 4 May react or be incompatible with oxidizing materials.
 OneSeq Binding Buffer May react or be incompatible with oxidizing materials.
 OneSeq Wash Buffer 1 May react or be incompatible with oxidizing materials.
 OneSeq Wash Buffer 2 May react or be incompatible with oxidizing materials.

10.6 Hazardous decomposition products

: OneSeq Hyb 1 Under normal conditions of storage and use, hazardous decomposition products should not be produced.
 OneSeq Hyb 2 Under normal conditions of storage and use, hazardous decomposition products should not be produced.
 OneSeq Hyb 4 Under normal conditions of storage and use, hazardous decomposition products should not be produced.
 OneSeq Binding Buffer Under normal conditions of storage and use, hazardous decomposition products should not be produced.
 OneSeq Wash Buffer 1 Under normal conditions of storage and use, hazardous decomposition products should not be produced.
 OneSeq Wash Buffer 2 Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
OneSeq Hyb 1				
Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-
Sodium dihydrogenorthophosphate	LD50 Oral	Rat	8290 mg/kg	-
OneSeq Hyb 2				
Edetic acid	LD50 Oral	Rat	4000 mg/kg	-
OneSeq Binding Buffer				
Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-

Section 11. Toxicological information

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
OneSeq Hyb 1 Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Sodium dihydrogenorthophosphate	Eyes - Mild irritant	Rabbit	-	150 milligrams	-
OneSeq Binding Buffer Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure

: OneSeq Hyb 1
OneSeq Hyb 2
OneSeq Hyb 4
OneSeq Binding Buffer
OneSeq Wash Buffer 1
OneSeq Wash Buffer 2

Routes of entry anticipated: Oral, Dermal, Inhalation.

Routes of entry anticipated: Oral, Dermal, Inhalation.

Not available.

Not available.

Not available.

Not available.

Potential acute health effects

Section 11. Toxicological information

Eye contact	: OneSeq Hyb 1	Causes serious eye irritation.
	OneSeq Hyb 2	Causes serious eye irritation.
	OneSeq Hyb 4	No known significant effects or critical hazards.
	OneSeq Binding Buffer	No known significant effects or critical hazards.
	OneSeq Wash Buffer 1	No known significant effects or critical hazards.
	OneSeq Wash Buffer 2	No known significant effects or critical hazards.
Inhalation	: OneSeq Hyb 1	No known significant effects or critical hazards.
	OneSeq Hyb 2	No known significant effects or critical hazards.
	OneSeq Hyb 4	No known significant effects or critical hazards.
	OneSeq Binding Buffer	No known significant effects or critical hazards.
	OneSeq Wash Buffer 1	No known significant effects or critical hazards.
	OneSeq Wash Buffer 2	No known significant effects or critical hazards.
Skin contact	: OneSeq Hyb 1	No known significant effects or critical hazards.
	OneSeq Hyb 2	No known significant effects or critical hazards.
	OneSeq Hyb 4	No known significant effects or critical hazards.
	OneSeq Binding Buffer	No known significant effects or critical hazards.
	OneSeq Wash Buffer 1	No known significant effects or critical hazards.
	OneSeq Wash Buffer 2	No known significant effects or critical hazards.
Ingestion	: OneSeq Hyb 1	No known significant effects or critical hazards.
	OneSeq Hyb 2	No known significant effects or critical hazards.
	OneSeq Hyb 4	No known significant effects or critical hazards.
	OneSeq Binding Buffer	No known significant effects or critical hazards.
	OneSeq Wash Buffer 1	No known significant effects or critical hazards.
	OneSeq Wash Buffer 2	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: OneSeq Hyb 1	Adverse symptoms may include the following: pain or irritation watering redness
	OneSeq Hyb 2	Adverse symptoms may include the following: pain or irritation watering redness
	OneSeq Hyb 4	No specific data.
	OneSeq Binding Buffer	No specific data.
	OneSeq Wash Buffer 1	No specific data.
	OneSeq Wash Buffer 2	No specific data.
Inhalation	: OneSeq Hyb 1	No specific data.
	OneSeq Hyb 2	No specific data.
	OneSeq Hyb 4	No specific data.
	OneSeq Binding Buffer	No specific data.
	OneSeq Wash Buffer 1	No specific data.
	OneSeq Wash Buffer 2	No specific data.
Skin contact	: OneSeq Hyb 1	No specific data.
	OneSeq Hyb 2	No specific data.
	OneSeq Hyb 4	No specific data.
	OneSeq Binding Buffer	No specific data.
	OneSeq Wash Buffer 1	No specific data.
	OneSeq Wash Buffer 2	No specific data.
Ingestion	: OneSeq Hyb 1	No specific data.
	OneSeq Hyb 2	No specific data.
	OneSeq Hyb 4	No specific data.
	OneSeq Binding Buffer	No specific data.
	OneSeq Wash Buffer 1	No specific data.
	OneSeq Wash Buffer 2	No specific data.

Section 11. Toxicological information

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: OneSeq Hyb 1 OneSeq Hyb 2 OneSeq Hyb 4 OneSeq Binding Buffer OneSeq Wash Buffer 1 OneSeq Wash Buffer 2	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	: OneSeq Hyb 1 OneSeq Hyb 2 OneSeq Hyb 4 OneSeq Binding Buffer OneSeq Wash Buffer 1 OneSeq Wash Buffer 2	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: OneSeq Hyb 1 OneSeq Hyb 2 OneSeq Hyb 4 OneSeq Binding Buffer OneSeq Wash Buffer 1 OneSeq Wash Buffer 2	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: OneSeq Hyb 1 OneSeq Hyb 2 OneSeq Hyb 4 OneSeq Binding Buffer OneSeq Wash Buffer 1 OneSeq Wash Buffer 2	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Developmental effects	: OneSeq Hyb 1 OneSeq Hyb 2 OneSeq Hyb 4 OneSeq Binding Buffer OneSeq Wash Buffer 1 OneSeq Wash Buffer 2	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: OneSeq Hyb 1 OneSeq Hyb 2 OneSeq Hyb 4 OneSeq Binding Buffer OneSeq Wash Buffer 1 OneSeq Wash Buffer 2	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Route	ATE value
OneSeq Hyb 1 Oral	17142.9 mg/kg
OneSeq Hyb 2 Oral	27397.3 mg/kg
OneSeq Binding Buffer Oral	51369.9 mg/kg

Section 12. Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
OneSeq Hyb 1 Sodium chloride	Acute EC50 2430000 µg/l Fresh water Acute EC50 519.6 mg/l Fresh water Acute IC50 6.87 g/L Fresh water Acute LC50 1661 mg/l Fresh water Acute LC50 1000000 µg/l Fresh water Chronic LC10 781 mg/l Fresh water	Algae - Navicula seminulum Crustaceans - Cypris subglobosa Aquatic plants - Lemna minor Daphnia - Daphnia magna Fish - Morone saxatilis - Larvae Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	96 hours 48 hours 96 hours 48 hours 96 hours 3 weeks
Sodium dihydrogenorthophosphate	Chronic NOEC 6 g/L Fresh water Chronic NOEC 0.314 g/L Fresh water Chronic NOEC 100 mg/l Fresh water Acute LC50 720 ppm Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia pulex Fish - Gambusia holbrooki - Adult Fish - Gambusia affinis - Adult	96 hours 21 days 8 weeks 96 hours
OneSeq Hyb 2 Edetic acid	Acute EC50 113000 µg/l Fresh water Acute LC50 59.8 mg/l Fresh water	Daphnia - Daphnia magna - Neonate Fish - Pimephales promelas	48 hours 96 hours
OneSeq Binding Buffer Sodium chloride	Acute EC50 2430000 µg/l Fresh water Acute EC50 519.6 mg/l Fresh water Acute IC50 6.87 g/L Fresh water Acute LC50 1661 mg/l Fresh water Acute LC50 1000000 µg/l Fresh water Chronic LC10 781 mg/l Fresh water Chronic NOEC 6 g/L Fresh water Chronic NOEC 0.314 g/L Fresh water Chronic NOEC 100 mg/l Fresh water	Algae - Navicula seminulum Crustaceans - Cypris subglobosa Aquatic plants - Lemna minor Daphnia - Daphnia magna Fish - Morone saxatilis - Larvae Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling) Aquatic plants - Lemna minor Daphnia - Daphnia pulex Fish - Gambusia holbrooki - Adult	96 hours 48 hours 96 hours 48 hours 96 hours 3 weeks 96 hours 21 days 8 weeks

12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
OneSeq Hyb 2 Edetic acid	-	-	Not readily

Section 12. Ecological information

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
OneSeq Hyb 2 Edetic acid	-3.86	1.8	low

12.4 Mobility in soil

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

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

Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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

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

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

Section 14. Transport information

Regulatory information

DOT / IMDG / IATA : Not regulated.

Section 15. Regulatory information

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

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

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Section 15. Regulatory information

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
OneSeq Hyb 1 Sodium chloride Sodium dihydrogenorthophosphate	≥10 - ≤25 ≤3	No. No.	No. No.	No. No.	Yes. Yes.	No. No.
OneSeq Hyb 2 Edetic acid	≥10 - ≤25	No.	No.	No.	Yes.	No.
OneSeq Binding Buffer Sodium chloride	<10	No.	No.	No.	Yes.	No.

State regulations

Massachusetts : The following components are listed: ETHYLENEDIAMINE TETRAACETIC ACID; EDTA

New York : The following components are listed: Ethylenediamine tetraacetic acid; EDTA

New Jersey : The following components are listed: ETHYLENEDIAMINETETRAACETIC ACID; GLYCINE, N,N'-1,2-ETHANEDIYLBIS[N-(CARBOXYMETHYL)-]; EDTA

Pennsylvania : The following components are listed: GLYCINE, N,N'-1,2-ETHANEDIYLBIS[N-(CARBOXYMETHYL)-

California Prop. 65

No products were found.

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.

Section 15. Regulatory information

Inventory list

Australia	: All components are listed or exempted.
Canada inventory	: 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) : Not determined.
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.
Turkey	: Not determined.

Section 16. Other information

History

Date of issue	: 10/20/2016
Date of previous issue	: No previous validation.
Version	: 1

✔ Indicates information that has changed from previously issued version.

Notice to reader

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