

SAFETY DATA SHEET

Early Access OneSeq Phased Exome Target Enrichment Box 1

Section 1. Identification

Product identifier : Early Access OneSeq Phased Exome Target Enrichment Box 1

Part no. (chemical kit) : 5190-9543

Part no. :

SureSelect Hyb 1	5190-4396
SureSelect Hyb 2	5190-4397
SureSelect Hyb 4	5190-4406
SureSelect Binding Buffer	5190-4399
SureSelect Wash Buffer 1	5190-4400
SureSelect Wash Buffer 2	5190-4401

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

Identified uses :

Analytical reagent.	
SureSelect Hyb 1	0.4 ml
SureSelect Hyb 2	1.25 ml
SureSelect Hyb 4	1.25 ml
SureSelect Binding Buffer	13.2 ml
SureSelect Wash Buffer 1	8 ml
SureSelect Wash Buffer 2	24 ml

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

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

Section 2. Hazard identification

Classification of the substance or mixture

SureSelect Hyb 2

H319

EYE IRRITATION - Category 2A

H373

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

GHS label elements

Hazard pictograms : SureSelect Hyb 2



Signal word

SureSelect Hyb 1	No signal word.
SureSelect Hyb 2	Warning
SureSelect Hyb 4	No signal word.
SureSelect Binding Buffer	No signal word.
SureSelect Wash Buffer 1	No signal word.
SureSelect Wash Buffer 2	No signal word.

Section 2. Hazard identification

Hazard statements	: SureSelect Hyb 1	No known significant effects or critical hazards.
	SureSelect Hyb 2	H319 - Causes serious eye irritation.
	SureSelect Hyb 4	H373 - May cause damage to organs through prolonged or repeated exposure. (respiratory tract)
	SureSelect Binding Buffer	No known significant effects or critical hazards.
	SureSelect Wash Buffer 1	No known significant effects or critical hazards.
	SureSelect Wash Buffer 2	No known significant effects or critical hazards.
Precautionary statements		
Prevention	: SureSelect Hyb 1	Not applicable.
	SureSelect Hyb 2	P280 - Wear eye or face protection.
	SureSelect Hyb 4	P260 - Do not breathe vapor.
	SureSelect Binding Buffer	Not applicable.
	SureSelect Wash Buffer 1	Not applicable.
	SureSelect Wash Buffer 2	Not applicable.
Response	: SureSelect Hyb 1	Not applicable.
	SureSelect Hyb 2	P314 - Get medical advice or attention if you feel unwell.
	SureSelect Hyb 4	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	SureSelect Binding Buffer	P337 + P313 - If eye irritation persists: Get medical advice or attention.
	SureSelect Wash Buffer 1	Not applicable.
	SureSelect Wash Buffer 2	Not applicable.
Storage	: SureSelect Hyb 1	Not applicable.
	SureSelect Hyb 2	Not applicable.
	SureSelect Hyb 4	Not applicable.
	SureSelect Binding Buffer	Not applicable.
	SureSelect Wash Buffer 1	Not applicable.
	SureSelect Wash Buffer 2	Not applicable.
Disposal	: SureSelect Hyb 1	Not applicable.
	SureSelect Hyb 2	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	SureSelect Hyb 4	Not applicable.
	SureSelect Binding Buffer	Not applicable.
	SureSelect Wash Buffer 1	Not applicable.
	SureSelect Wash Buffer 2	Not applicable.
Supplemental label elements	: SureSelect Hyb 1	None known.
	SureSelect Hyb 2	None known.
	SureSelect Hyb 4	None known.
	SureSelect Binding Buffer	None known.
	SureSelect Wash Buffer 1	None known.
	SureSelect Wash Buffer 2	None known.
Other hazards which do not result in classification	: SureSelect Hyb 1	None known.
	SureSelect Hyb 2	None known.
	SureSelect Hyb 4	None known.
	SureSelect Binding Buffer	None known.
	SureSelect Wash Buffer 1	None known.
	SureSelect Wash Buffer 2	None known.

Section 3. Composition/information on ingredients

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

Ingredient name	Synonyms	% (w/w)	CAS number
SureSelect Hyb 1 Sodium dihydrogenorthophosphate	Sodium phosphate, monobasic	≥1 - ≤5	7558-80-7
SureSelect Hyb 2 EDTA	EDTA	≥10 - ≤30	60-00-4
SureSelect Hyb 4 Sodium dodecyl sulphate	Sodium dodecyl sulphate	≥0.1 - ≤1	151-21-3
SureSelect Wash Buffer 1 Sodium dodecyl sulphate	Sodium dodecyl sulphate	≥0.1 - ≤1	151-21-3
SureSelect Wash Buffer 2 Sodium dodecyl sulphate	Sodium dodecyl sulphate	≥0.1 - ≤1	151-21-3


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

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

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

Section 4. First-aid measures

Description of necessary first aid measures

Eye contact	:	 SureSelect Hyb 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.
		SureSelect 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.
		SureSelect 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.
		SureSelect 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.
		SureSelect Wash Buffer 1	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.

Section 4. First-aid measures

Inhalation

SureSelect Wash Buffer 2

Check for and remove any contact lenses. Get medical attention if irritation occurs.

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.

: SureSelect Hyb 1

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

SureSelect 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 following exposure or if feeling unwell. 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.

SureSelect Hyb 4

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

SureSelect Binding Buffer

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

SureSelect Wash Buffer 1

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

SureSelect 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

: SureSelect Hyb 1

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

SureSelect Hyb 2

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

SureSelect Hyb 4

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

SureSelect Binding Buffer

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

SureSelect Wash Buffer 1

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

SureSelect Wash Buffer 2

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Section 4. First-aid measures

Ingestion	: SureSelect Hyb 1	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	SureSelect Hyb 2	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention following exposure or if feeling unwell. 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.
	SureSelect Hyb 4	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	SureSelect Binding Buffer	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	SureSelect Wash Buffer 1	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	SureSelect Wash Buffer 2	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

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

Section 4. First-aid measures

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

Over-exposure signs/symptoms

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

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

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

Section 4. First-aid measures

	SureSelect Wash Buffer 2	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: SureSelect Hyb 1	No specific treatment.
	SureSelect Hyb 2	No specific treatment.
	SureSelect Hyb 4	No specific treatment.
	SureSelect Binding Buffer	No specific treatment.
	SureSelect Wash Buffer 1	No specific treatment.
Protection of first-aiders	: SureSelect Wash Buffer 2	No specific treatment.
	: SureSelect Hyb 1	No action shall be taken involving any personal risk or without suitable training.
	SureSelect Hyb 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.
	SureSelect Hyb 4	No action shall be taken involving any personal risk or without suitable training.
	SureSelect Binding Buffer	No action shall be taken involving any personal risk or without suitable training.
	SureSelect Wash Buffer 1	No action shall be taken involving any personal risk or without suitable training.
	SureSelect Wash Buffer 2	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

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

Specific hazards arising from the chemical

: SureSelect Hyb 1	In a fire or if heated, a pressure increase will occur and the container may burst.
SureSelect Hyb 2	In a fire or if heated, a pressure increase will occur and the container may burst.
SureSelect Hyb 4	In a fire or if heated, a pressure increase will occur and the container may burst.
SureSelect Binding Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
SureSelect Wash Buffer 1	In a fire or if heated, a pressure increase will occur and the container may burst.

Section 5. Fire-fighting measures

Hazardous thermal decomposition products

SureSelect Wash Buffer 2

In a fire or if heated, a pressure increase will occur and the container may burst.

: SureSelect Hyb 1

Decomposition products may include the following materials:

phosphorus oxides
halogenated compounds
metal oxide/oxides

SureSelect Hyb 2

Decomposition products may include the following materials:

carbon dioxide
carbon monoxide
nitrogen oxides

SureSelect Hyb 4

No specific data.

SureSelect Binding Buffer

Decomposition products may include the following materials:

halogenated compounds
metal oxide/oxides

SureSelect Wash Buffer 1

No specific data.

SureSelect Wash Buffer 2

No specific data.

Special protective actions for fire-fighters

: SureSelect 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.

SureSelect 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.

SureSelect 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.

SureSelect 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.

SureSelect 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.

SureSelect 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

: SureSelect 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.

SureSelect 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.

SureSelect Hyb 4

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

SureSelect Binding Buffer

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

SureSelect Wash Buffer 1	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.
SureSelect 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

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: SureSelect 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. Put on appropriate personal protective equipment.
SureSelect 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.
SureSelect 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.
SureSelect 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.
SureSelect 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.
SureSelect 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.

For emergency responders

: SureSelect 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".
SureSelect 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".
SureSelect Hyb 4	If specialized clothing is required to deal with the

Section 6. Accidental release measures

SureSelect Binding Buffer

spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

SureSelect 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".

SureSelect 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".

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : SureSelect 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).

SureSelect 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).

SureSelect 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).

SureSelect 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).

SureSelect 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).

SureSelect 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).

Methods and materials for containment and cleaning up

Methods for cleaning up : SureSelect 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.

SureSelect 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.

Section 6. Accidental release measures

SureSelect Hyb 4	disposal contractor. Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
SureSelect 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.
SureSelect 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.
SureSelect 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

Precautions for safe handling

Protective measures

: SureSelect Hyb 1	Put on appropriate personal protective equipment (see Section 8).
SureSelect Hyb 2	Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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.
SureSelect Hyb 4	Put on appropriate personal protective equipment (see Section 8).
SureSelect Binding Buffer	Put on appropriate personal protective equipment (see Section 8).
SureSelect Wash Buffer 1	Put on appropriate personal protective equipment (see Section 8).
SureSelect Wash Buffer 2	Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene

: SureSelect 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.
SureSelect 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

Section 7. Handling and storage

SureSelect Hyb 4

additional information on hygiene measures. 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.

SureSelect 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.

SureSelect 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.

SureSelect 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.

Conditions for safe storage, including any incompatibilities : SureSelect 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. See Section 10 for incompatible materials before handling or use.

SureSelect 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. See Section 10 for incompatible materials before handling or use.

SureSelect 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

Section 7. Handling and storage

SureSelect Binding Buffer

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

SureSelect 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. See Section 10 for incompatible materials before handling or use.

SureSelect 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. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls

- : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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

Section 8. Exposure controls/personal protection

- 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

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


Appearance

- | | | |
|-----------------------|---------------------------|----------------|
| Physical state | : SureSelect Hyb 1 | Liquid. |
| | SureSelect Hyb 2 | Liquid. |
| | SureSelect Hyb 4 | Liquid. |
| | SureSelect Binding Buffer | Liquid. |
| | SureSelect Wash Buffer 1 | Liquid. |
| | SureSelect Wash Buffer 2 | Liquid. |
| Color | : SureSelect Hyb 1 | Not available. |
| | SureSelect Hyb 2 | Not available. |
| | SureSelect Hyb 4 | Not available. |
| | SureSelect Binding Buffer | Not available. |
| | SureSelect Wash Buffer 1 | Not available. |
| | SureSelect Wash Buffer 2 | Not available. |
| Odor | : SureSelect Hyb 1 | Not available. |
| | SureSelect Hyb 2 | Not available. |
| | SureSelect Hyb 4 | Not available. |
| | SureSelect Binding Buffer | Not available. |
| | SureSelect Wash Buffer 1 | Not available. |
| | SureSelect Wash Buffer 2 | Not available. |

Section 9. Physical and chemical properties and safety characteristics

Odor threshold	: SureSelect Hyb 1	Not available.
	SureSelect Hyb 2	Not available.
	SureSelect Hyb 4	Not available.
	SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	Not available.
	SureSelect Wash Buffer 2	Not available.
pH	: SureSelect Hyb 1	7.4
	SureSelect Hyb 2	8
	SureSelect Hyb 4	Not available.
	SureSelect Binding Buffer	7.5
	SureSelect Wash Buffer 1	7.5
	SureSelect Wash Buffer 2	7
Melting point/freezing point	: SureSelect Hyb 1	Not available.
	SureSelect Hyb 2	Not available.
	SureSelect Hyb 4	0°C (32°F)
	SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	0°C (32°F)
	SureSelect Wash Buffer 2	0°C (32°F)
Boiling point, initial boiling point, and boiling range	: SureSelect Hyb 1	Not available.
	SureSelect Hyb 2	Not available.
	SureSelect Hyb 4	100°C (212°F)
	SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	100°C (212°F)
	SureSelect Wash Buffer 2	100°C (212°F)
Flash point	: SureSelect Hyb 1	Not available.
	SureSelect Hyb 2	Not available.
	SureSelect Hyb 4	Not available.
	SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	Not available.
	SureSelect Wash Buffer 2	Not available.
Evaporation rate	: SureSelect Hyb 1	Not available.
	SureSelect Hyb 2	Not available.
	SureSelect Hyb 4	Not available.
	SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	Not available.
	SureSelect Wash Buffer 2	Not available.
Flammability	: SureSelect Hyb 1	Not applicable.
	SureSelect Hyb 2	Not applicable.
	SureSelect Hyb 4	Not applicable.
	SureSelect Binding Buffer	Not applicable.
	SureSelect Wash Buffer 1	Not applicable.
	SureSelect Wash Buffer 2	Not applicable.
Lower and upper explosion limit/flammability limit	: SureSelect Hyb 1	Not available.
	SureSelect Hyb 2	Not available.
	SureSelect Hyb 4	Not available.
	SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	Not available.
	SureSelect Wash Buffer 2	Not available.
Vapor pressure	:	

Section 9. Physical and chemical properties and safety characteristics


Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
 SureSelect Hyb 1						
water	17.5	2.3	-	92.258	12.3	-
SureSelect Hyb 2						
water	17.5	2.3	-	92.258	12.3	-
EDTA	0	0	-	-	-	-
SureSelect Hyb 4						
water	17.5	2.3	-	92.258	12.3	-
SureSelect Binding Buffer						
water	17.5	2.3	-	92.258	12.3	-
SureSelect Wash Buffer 1						
water	17.5	2.3	-	92.258	12.3	-
SureSelect Wash Buffer 2						
water	17.5	2.3	-	92.258	12.3	-

Relative vapor density :




- SureSelect Hyb 1 Not available.
- SureSelect Hyb 2 Not available.
- SureSelect Hyb 4 Not available.
- SureSelect Binding Buffer Not available.
- SureSelect Wash Buffer 1 Not available.
- SureSelect Wash Buffer 2 Not available.

Relative density :

- SureSelect Hyb 1 Not available.
- SureSelect Hyb 2 Not available.
- SureSelect Hyb 4 Not available.
- SureSelect Binding Buffer Not available.
- SureSelect Wash Buffer 1 Not available.
- SureSelect Wash Buffer 2 Not available.

Media	Result
 SureSelect Hyb 1	
water	Soluble
SureSelect Hyb 2	
water	Soluble
SureSelect Hyb 4	
water	Soluble
SureSelect Binding Buffer	
water	Soluble

Section 9. Physical and chemical properties and safety characteristics

	SureSelect Wash Buffer 1 water	Soluble														
	SureSelect Wash Buffer 2 water	Soluble														
Partition coefficient: n-octanol/water	: SureSelect Hyb 1	Not applicable.														
	SureSelect Hyb 2	Not applicable.														
	SureSelect Hyb 4	Not applicable.														
	SureSelect Binding Buffer	Not applicable.														
	SureSelect Wash Buffer 1	Not applicable.														
	SureSelect Wash Buffer 2	Not applicable.														
Auto-ignition temperature	: <table><tr><th>Ingredient name</th><th>°C</th><th>°F</th><th>Method</th></tr><tr><td> SureSelect Hyb 2</td><td></td><td></td><td></td></tr><tr><td>EDTA</td><td>>400</td><td>>752</td><td>VDI 2263</td></tr></table>	Ingredient name	°C	°F	Method	 SureSelect Hyb 2				EDTA	>400	>752	VDI 2263			
Ingredient name	°C	°F	Method													
 SureSelect Hyb 2																
EDTA	>400	>752	VDI 2263													
Decomposition temperature	: SureSelect Hyb 1	Not available.														
	SureSelect Hyb 2	Not available.														
	SureSelect Hyb 4	Not available.														
	SureSelect Binding Buffer	Not available.														
	SureSelect Wash Buffer 1	Not available.														
	SureSelect Wash Buffer 2	Not available.														
Viscosity	: SureSelect Hyb 1	Not available.														
	SureSelect Hyb 2	Not available.														
	SureSelect Hyb 4	Not available.														
	SureSelect Binding Buffer	Not available.														
	SureSelect Wash Buffer 1	Not available.														
	SureSelect Wash Buffer 2	Not available.														
<u>Particle characteristics</u>																
Median particle size	: SureSelect Hyb 1	Not applicable.														
	SureSelect Hyb 2	Not applicable.														
	SureSelect Hyb 4	Not applicable.														
	SureSelect Binding Buffer	Not applicable.														
	SureSelect Wash Buffer 1	Not applicable.														
	SureSelect Wash Buffer 2	Not applicable.														

Section 10. Stability and reactivity

Reactivity	: SureSelect Hyb 1	No specific test data related to reactivity available for this product or its ingredients.
	SureSelect Hyb 2	No specific test data related to reactivity available for this product or its ingredients.
	SureSelect Hyb 4	No specific test data related to reactivity available for this product or its ingredients.
	SureSelect Binding Buffer	No specific test data related to reactivity available for this product or its ingredients.
	SureSelect Wash Buffer 1	No specific test data related to reactivity available for this product or its ingredients.
	SureSelect Wash Buffer 2	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: SureSelect Hyb 1	The product is stable.
	SureSelect Hyb 2	The product is stable.
	SureSelect Hyb 4	The product is stable.
	SureSelect Binding Buffer	The product is stable.
	SureSelect Wash Buffer 1	The product is stable.
	SureSelect Wash Buffer 2	The product is stable.

Section 10. Stability and reactivity

Possibility of hazardous reactions	: SureSelect Hyb 1	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureSelect Hyb 2	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureSelect Hyb 4	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureSelect Binding Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureSelect Wash Buffer 1	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureSelect Wash Buffer 2	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: SureSelect Hyb 1	No specific data.
	SureSelect Hyb 2	No specific data.
	SureSelect Hyb 4	No specific data.
	SureSelect Binding Buffer	No specific data.
	SureSelect Wash Buffer 1	No specific data.
	SureSelect Wash Buffer 2	No specific data.
Incompatible materials	: SureSelect Hyb 1	May react or be incompatible with oxidizing materials.
	SureSelect Hyb 2	May react or be incompatible with oxidizing materials.
	SureSelect Hyb 4	May react or be incompatible with oxidizing materials.
	SureSelect Binding Buffer	May react or be incompatible with oxidizing materials.
	SureSelect Wash Buffer 1	May react or be incompatible with oxidizing materials.
	SureSelect Wash Buffer 2	May react or be incompatible with oxidizing materials.
Hazardous decomposition products	: SureSelect Hyb 1	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SureSelect Hyb 2	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SureSelect Hyb 4	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SureSelect Binding Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SureSelect Wash Buffer 1	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SureSelect Wash Buffer 2	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
SureSelect Hyb 1 Sodium dihydrogenorthophosphate	LD50 Dermal	Rabbit	>7940 mg/kg	-
	LD50 Oral	Rat	8290 mg/kg	-
SureSelect Hyb 2 EDTA	LD50 Oral	Rat	4500 mg/kg	-
SureSelect Hyb 4 Sodium dodecyl sulphate	LD50 Oral	Rat	1288 mg/kg	-
SureSelect Wash Buffer 1 Sodium dodecyl sulphate	LD50 Oral	Rat	1288 mg/kg	-
SureSelect Wash Buffer 2 Sodium dodecyl sulphate	LD50 Oral	Rat	1288 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
SureSelect Hyb 1 Sodium dihydrogenorthophosphate	Eyes - Mild irritant	Rabbit	-	150 mg	-
SureSelect Hyb 4 Sodium dodecyl sulphate	Eyes - Mild irritant	Rabbit	-	250 ug	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Skin - Mild irritant	Guinea pig	-	24 hours 25 mg	-
	Skin - Mild irritant	Guinea pig	-	336 hours 25250 ppm	-
	Skin - Mild irritant	Human	-	48 hours 5 %	-
	Skin - Mild irritant	Rabbit	-	24 hours 50 mg	-
	Skin - Moderate irritant	Mouse	-	24 hours 25 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 25 mg	-
	Skin - Severe irritant	Guinea pig	-	48 hours 25250 ppm	-
	Skin - Severe irritant	Guinea pig	-	72 hours 25250 ppm	-
	Skin - Severe irritant	Human	-	24 hours 10 %	-
	Skin - Severe irritant	Rabbit	-	24 hours 2.5 %	-
SureSelect Wash Buffer 1 Sodium dodecyl sulphate	Eyes - Mild irritant	Rabbit	-	250 ug	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Skin - Mild irritant	Guinea pig	-	24 hours 25 mg	-
	Skin - Mild irritant	Guinea pig	-	336 hours 25250 ppm	-
	Skin - Mild irritant	Human	-	48 hours 5 %	-

Section 11. Toxicological information

SureSelect Wash Buffer 2 Sodium dodecyl sulphate	Skin - Mild irritant	Rabbit	-	24 hours 50 mg	-
	Skin - Moderate irritant	Mouse	-	24 hours 25 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 25 mg	-
	Skin - Severe irritant	Guinea pig	-	48 hours 25250 ppm	-
	Skin - Severe irritant	Guinea pig	-	72 hours 25250 ppm	-
	Skin - Severe irritant	Human	-	24 hours 10 %	-
	Skin - Severe irritant	Rabbit	-	24 hours 2.5 %	-
	Eyes - Mild irritant	Rabbit	-	250 ug	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Skin - Mild irritant	Guinea pig	-	24 hours 25 mg	-
	Skin - Mild irritant	Guinea pig	-	336 hours 25250 ppm	-
	Skin - Mild irritant	Human	-	48 hours 5 %	-
	Skin - Mild irritant	Rabbit	-	24 hours 50 mg	-
	Skin - Moderate irritant	Mouse	-	24 hours 25 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 25 mg	-
	Skin - Severe irritant	Guinea pig	-	48 hours 25250 ppm	-
	Skin - Severe irritant	Guinea pig	-	72 hours 25250 ppm	-
	Skin - Severe irritant	Human	-	24 hours 10 %	-
	Skin - Severe irritant	Rabbit	-	24 hours 2.5 %	-

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity


Conclusion/Summary : Not available.

Teratogenicity


Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
 SureSelect Hyb 4 Sodium dodecyl sulphate	Category 3	-	Respiratory tract irritation
SureSelect Wash Buffer 1 Sodium dodecyl sulphate	Category 3	-	Respiratory tract irritation
SureSelect Wash Buffer 2 Sodium dodecyl sulphate	Category 3	-	Respiratory tract irritation


Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
 SureSelect Hyb 2 EDTA	Category 2	inhalation	respiratory tract





Aspiration hazard

Not available.

Information on the likely routes of exposure

 SureSelect Hyb 1 SureSelect Hyb 2	Not available. Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2	Not available. Not available. Not available. Not available.

Potential acute health effects

Eye contact	 SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2	No known significant effects or critical hazards. 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	 SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect 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	 SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect 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.
Ingestion	 SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect 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 11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

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

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	: SureSelect Hyb 1	No known significant effects or critical hazards.
	SureSelect Hyb 2	May cause damage to organs through prolonged or repeated exposure.
	SureSelect Hyb 4	No known significant effects or critical hazards.
	SureSelect Binding Buffer	No known significant effects or critical hazards.
	SureSelect Wash Buffer 1	No known significant effects or critical hazards.
Carcinogenicity	SureSelect Wash Buffer 2	No known significant effects or critical hazards.
	: SureSelect Hyb 1	No known significant effects or critical hazards.
	SureSelect Hyb 2	No known significant effects or critical hazards.
	SureSelect Hyb 4	No known significant effects or critical hazards.
	SureSelect Binding Buffer	No known significant effects or critical hazards.
	SureSelect Wash Buffer 1	No known significant effects or critical hazards.
	SureSelect Wash Buffer 2	No known significant effects or critical hazards.

Section 11. Toxicological information

Mutagenicity	SureSelect Hyb 1	No known significant effects or critical hazards.
	SureSelect Hyb 2	No known significant effects or critical hazards.
	SureSelect Hyb 4	No known significant effects or critical hazards.
	SureSelect Binding Buffer	No known significant effects or critical hazards.
	SureSelect Wash Buffer 1	No known significant effects or critical hazards.
	SureSelect Wash Buffer 2	No known significant effects or critical hazards.
Reproductive toxicity	SureSelect Hyb 1	No known significant effects or critical hazards.
	SureSelect Hyb 2	No known significant effects or critical hazards.
	SureSelect Hyb 4	No known significant effects or critical hazards.
	SureSelect Binding Buffer	No known significant effects or critical hazards.
	SureSelect Wash Buffer 1	No known significant effects or critical hazards.
	SureSelect Wash Buffer 2	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
SureSelect Hyb 1 SureSelect Hyb 1 Sodium dihydrogenorthophosphate	17142.9 8290	N/A N/A	N/A N/A	N/A N/A	N/A N/A
SureSelect Hyb 2 SureSelect Hyb 2 EDTA	30821.9 4500	N/A N/A	N/A N/A	N/A N/A	10.3 1.5
SureSelect Hyb 4 Sodium dodecyl sulphate	1288	N/A	N/A	N/A	1.5
SureSelect Binding Buffer SureSelect Binding Buffer	51369.9	N/A	N/A	N/A	N/A
SureSelect Wash Buffer 1 Sodium dodecyl sulphate	1288	N/A	N/A	N/A	1.5
SureSelect Wash Buffer 2 Sodium dodecyl sulphate	1288	N/A	N/A	N/A	1.5

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
SureSelect Hyb 1 Sodium dihydrogenorthophosphate	Acute LC50 720 ppm Fresh water	Fish - <i>Gambusia affinis</i> - Adult	96 hours
SureSelect Hyb 2 EDTA	Acute EC50 >60 mg/l Fresh water	Algae - <i>Raphidocelis subcapitata</i>	72 hours
	Acute EC50 113000 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 129000 µg/l Fresh water	Fish - <i>Ictalurus punctatus</i> - Fingerling	96 hours


Section 12. Ecological information

SureSelect Hyb 4 Sodium dodecyl sulphate	Acute EC50 1200 µg/l Marine water	Algae - <i>Skeletonema costatum</i>	96 hours
	Acute LC50 900 µg/l Marine water	Crustaceans - <i>Artemia salina</i> - Adult	48 hours
	Acute LC50 1400 µg/l Fresh water	Daphnia - <i>Daphnia pulex</i> - Neonate	48 hours
	Acute LC50 590 µg/l Fresh water	Fish - <i>Cirrhinus mrigala</i> - Larvae	96 hours
	Chronic NOEC 1.25 mg/l Marine water	Algae - <i>Ulva fasciata</i> - Zoea	96 hours
	Chronic NOEC 1 mg/l Fresh water	Crustaceans - <i>Pseudosida ramosa</i> - Neonate	21 days
	Chronic NOEC 3.2 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days
SureSelect Wash Buffer 1 Sodium dodecyl sulphate	Chronic NOEC 0.8 mg/l Fresh water	Fish - <i>Gambusia holbrooki</i>	28 days
	Acute EC50 1200 µg/l Marine water	Algae - <i>Skeletonema costatum</i>	96 hours
	Acute LC50 900 µg/l Marine water	Crustaceans - <i>Artemia salina</i> - Adult	48 hours
	Acute LC50 1400 µg/l Fresh water	Daphnia - <i>Daphnia pulex</i> - Neonate	48 hours
	Acute LC50 590 µg/l Fresh water	Fish - <i>Cirrhinus mrigala</i> - Larvae	96 hours
	Chronic NOEC 1.25 mg/l Marine water	Algae - <i>Ulva fasciata</i> - Zoea	96 hours
	Chronic NOEC 1 mg/l Fresh water	Crustaceans - <i>Pseudosida ramosa</i> - Neonate	21 days
SureSelect Wash Buffer 2 Sodium dodecyl sulphate	Chronic NOEC 3.2 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days
	Chronic NOEC 0.8 mg/l Fresh water	Fish - <i>Gambusia holbrooki</i>	28 days
	Acute EC50 1200 µg/l Marine water	Algae - <i>Skeletonema costatum</i>	96 hours
	Acute LC50 900 µg/l Marine water	Crustaceans - <i>Artemia salina</i> - Adult	48 hours
	Acute LC50 1400 µg/l Fresh water	Daphnia - <i>Daphnia pulex</i> - Neonate	48 hours
	Acute LC50 590 µg/l Fresh water	Fish - <i>Cirrhinus mrigala</i> - Larvae	96 hours
	Chronic NOEC 1.25 mg/l Marine water	Algae - <i>Ulva fasciata</i> - Zoea	96 hours
SureSelect Wash Buffer 2 Sodium dodecyl sulphate	Chronic NOEC 1 mg/l Fresh water	Crustaceans - <i>Pseudosida ramosa</i> - Neonate	21 days
	Chronic NOEC 3.2 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days
	Chronic NOEC 0.8 mg/l Fresh water	Fish - <i>Gambusia holbrooki</i>	28 days

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
SureSelect Hyb 4 Sodium dodecyl sulphate	OECD 301B Ready Biodegradability - CO ₂ Evolution Test	95 % - Readily - 28 days	20 mg/l	-
SureSelect Wash Buffer 1 Sodium dodecyl sulphate	OECD 301B Ready Biodegradability - CO ₂ Evolution Test	95 % - Readily - 28 days	20 mg/l	-

Section 12. Ecological information

SureSelect Wash Buffer 2 Sodium dodecyl sulphate	OECD 301B Ready Biodegradability - CO ₂ Evolution Test	95 % - Readily - 28 days	20 mg/l	-
Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability	
 SureSelect Hyb 2 EDTA	-	-	Not readily	
SureSelect Hyb 4 Sodium dodecyl sulphate	-	-	Readily	
SureSelect Wash Buffer 1 Sodium dodecyl sulphate	-	-	Readily	
SureSelect Wash Buffer 2 Sodium dodecyl sulphate	-	-	Readily	

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
SureSelect Hyb 2 EDTA	-	1.8	Low
SureSelect Hyb 4 Sodium dodecyl sulphate	-2.03	-	Low
SureSelect Wash Buffer 1 Sodium dodecyl sulphate	-2.03	-	Low
SureSelect Wash Buffer 2 Sodium dodecyl sulphate	-2.03	-	Low

Mobility in soil

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

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

Section 13. Disposal considerations

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

Section 14. Transport information

TDG / IMDG / IATA : Not regulated.

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 IMO instruments : Not available.

Section 15. Regulatory information

Canadian lists

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Canada : ☒ All components are listed or exempted.

United States : ☒ All components are active or exempted.

Section 16. Other information

History

Date of issue/Date of revision : 10/18/2024


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

Procedure used to derive the classification

Section 16. Other information

Classification	Justification
 SureSelect Hyb 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method Calculation method

 Indicates information that has changed from previously issued version.

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