

SAFETY DATA SHEET



SureSelect Target Enrichment Box 1-96 Reactions, Part Number 5190-8646

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name	: SureSelect Target Enrichment Box 1-96 Reactions, Part Number 5190-8646
Part No. (Kit)	: 5190-8646
Part No.	: SureSelect Hyb 1 5190-4404 SureSelect Hyb 2 5190-4405 SureSelect Hyb 4 5190-4406 SureSelect Binding Buffer 5190-4407 SureSelect Wash Buffer 1 5190-4408 SureSelect Wash Buffer 2 5190-4409

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

Identified uses	
Analytical reagent.	
SureSelect Hyb 1	2.4 ml
SureSelect Hyb 2	0.096 ml
SureSelect Hyb 4	1.25 ml
SureSelect Binding Buffer	80 ml
SureSelect Wash Buffer 1	48 ml
SureSelect Wash Buffer 2	144 ml

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition	: 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

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Date of issue/Date of revision : 21/01/2018

SECTION 2: Hazards identification

SureSelect Hyb 1

H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2

SureSelect Hyb 2

H373 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

Ingredients of unknown toxicity	: SureSelect Hyb 1	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
		Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%
	SureSelect Hyb 2	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 10 - 30%
	SureSelect Hyb 4	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
	SureSelect Binding Buffer	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms : SureSelect Hyb 1



SureSelect Hyb 2



Signal word	: SureSelect Hyb 1	Warning
	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.

Hazard statements	: SureSelect Hyb 1	H319 - Causes serious eye irritation.
	SureSelect Hyb 2	H373 - 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.
	SureSelect Wash Buffer 2	No known significant effects or critical hazards.

Precautionary statements

Prevention	: SureSelect Hyb 1	P280 - Wear eye or face protection. P264 - Wash hands thoroughly after handling.
	SureSelect Hyb 2	P260 - Do not breathe vapour.
	SureSelect Hyb 4	Not applicable.
	SureSelect Binding Buffer	Not applicable.
	SureSelect Wash Buffer 1	Not applicable.
	SureSelect Wash Buffer 2	Not applicable.

SECTION 2: Hazards identification

	2	
Response	: SureSelect Hyb 1	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 Hyb 2	P314 - Get medical attention if you feel unwell.
	SureSelect Hyb 4	Not applicable.
	SureSelect Binding Buffer	Not applicable.
	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.
Hazardous ingredients	: SureSelect Hyb 1	Not applicable.
	SureSelect Hyb 2	- Disodium dihydrogen ethylenediaminetetraacetate
	SureSelect Hyb 4	Not applicable.
	SureSelect Binding Buffer	Not applicable.
Supplemental label elements	: SureSelect Hyb 1	Not applicable.
	SureSelect Hyb 2	Not applicable.
	SureSelect Hyb 4	Safety data sheet available on request.
	SureSelect Binding Buffer	Safety data sheet available on request.
	SureSelect Wash Buffer 1	Not applicable.
	SureSelect Wash Buffer 2	Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: 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.

Special packaging requirements

SureSelect Target Enrichment Box 1-96 Reactions, Part Number 5190-8646

SECTION 2: Hazards identification

Tactile warning of danger	: 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.

2.3 Other hazards

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

3.1 Substances	: 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

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
SureSelect Hyb 1 Sodium chloride	EC: 231-598-3 CAS: 7647-14-5	≥10 - ≤25	Eye Irrit. 2, H319	[1]
SureSelect Hyb 2 Disodium dihydrogen ethylenediaminetetraacetate	EC: 205-358-3 CAS: 139-33-3	≥10 - ≤25	Acute Tox. 4, H302 Acute Tox. 4, H332 STOT RE 2, H373 (respiratory tract) (inhalation)	[1]
SureSelect Hyb 4 Sulfuric acid monododecyl ester sodium salt (1:1)	CAS: 8012-56-4	≤3	Acute Tox. 4, H302 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 3, H412	[1]
SureSelect Binding Buffer Sodium chloride	EC: 231-598-3 CAS: 7647-14-5	<10	Eye Irrit. 2, H319 See Section 16 for the full text of the H statements declared above.	[1]

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.

Date of issue/Date of revision : 21/01/2018

SECTION 3: Composition/information on ingredients

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

SECTION 4: First aid measures

4.1 Description of 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. Continue to rinse for at least 10 minutes. Get medical attention.
	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 following exposure or if feeling unwell.
	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. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	SureSelect 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	: SureSelect 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.
	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	Remove victim to fresh air and keep at rest in a position

SECTION 4: First aid measures

	1	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. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	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.
Ingestion	: SureSelect 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.
	SureSelect 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 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. 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.
	SureSelect Binding Buffer	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If

SECTION 4: First aid measures

		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. 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.
	SureSelect 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.
Protection of first-aiders	: SureSelect Hyb 1	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 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.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact	: SureSelect Hyb 1	Causes serious eye irritation.
	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.
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.
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.

SECTION 4: First aid measures

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	Adverse symptoms may include the following: pain or irritation watering redness
		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.

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.

4.3 Indication of any immediate medical attention and special treatment needed

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.

SECTION 4: First aid measures

	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.
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.
	SureSelect Wash Buffer 2	No specific treatment.

SECTION 5: Firefighting measures

5.1 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.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: 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.
	SureSelect Wash Buffer 2	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	: 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 metal oxide/oxides
	SureSelect Hyb 4	Decomposition products may include the following materials: carbon dioxide

SECTION 5: Firefighting measures

	carbon monoxide sulfur oxides metal oxide/oxides
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.

5.3 Advice for firefighters

Special precautions 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
SureSelect Binding Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
SureSelect 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 5: Firefighting measures

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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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SECTION 6: Accidental release measures

6.1 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 spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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 spilt material. Avoid breathing vapour 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 spilt 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 spilt 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 spilt 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 spilt material. Put on appropriate personal protective equipment.

For emergency responders

: SureSelect Hyb 1	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureSelect Hyb 2	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureSelect Hyb 4	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureSelect Binding Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureSelect Wash Buffer 1	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

SECTION 6: Accidental release measures

		unsuitable materials. See also the information in "For non-emergency personnel".
	SureSelect Wash Buffer 2	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
6.2 Environmental precautions	: SureSelect Hyb 1	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	SureSelect Hyb 2	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	SureSelect Hyb 4	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	SureSelect Binding Buffer	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	SureSelect Wash Buffer 1	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	SureSelect Wash Buffer 2	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material 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.
	SureSelect 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.
	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

SECTION 6: Accidental release measures

place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

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

SureSelect Wash Buffer 2

Section 8 for 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.

7.2 Conditions for safe storage, including any incompatibilities

Storage	: 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 unlabelled 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 unlabelled 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
	SureSelect 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 unlabelled 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 unlabelled 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

SECTION 7: Handling and storage

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

7.3 Specific end use(s)

Recommendations	:	SureSelect Hyb 1	Industrial applications, Professional applications.
		SureSelect Hyb 2	Industrial applications, Professional applications.
		SureSelect Hyb 4	Industrial applications, Professional applications.
		SureSelect Binding Buffer	Industrial applications, Professional applications.
		SureSelect Wash Buffer 1	Industrial applications, Professional applications.
		SureSelect Wash Buffer 2	Industrial applications, Professional applications.
Industrial sector specific solutions	:	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 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

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

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. Contaminated work clothing should not be allowed out of the workplace. 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.
- 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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	SureSelect Hyb 1	Liquid.
	SureSelect Hyb 2	Liquid.
	SureSelect Hyb 4	Liquid.
	SureSelect Binding	Liquid.
	Buffer	
	SureSelect Wash	Liquid.
	Buffer 1	
	SureSelect Wash	Liquid.
	Buffer 2	
	Colour	SureSelect Hyb 1
SureSelect Hyb 2		Not available.
SureSelect Hyb 4		Not available.
SureSelect Binding		Not available.
Buffer		
SureSelect Wash		Not available.
Buffer 1		
SureSelect Wash		Not available.
Buffer 2		

SECTION 9: Physical and chemical properties

Odour	: 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.	
	Odour 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	5.2 to 6.2
	SureSelect Binding Buffer	7.5	
	SureSelect Wash Buffer 1	7	
	SureSelect Wash Buffer 2	7	
	Melting point/freezing point	: SureSelect Hyb 1	Not available.
		SureSelect Hyb 2	Not available.
		SureSelect Hyb 4	0°C
SureSelect Binding Buffer		Not available.	
SureSelect Wash Buffer 1		0°C	
SureSelect Wash Buffer 2		0°C	
Initial boiling point and boiling range		: SureSelect Hyb 1	Not available.
		SureSelect Hyb 2	Not available.
		SureSelect Hyb 4	100°C
	SureSelect Binding Buffer	Not available.	
	SureSelect Wash Buffer 1	100°C	
	SureSelect Wash Buffer 2	100°C	
	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.	

SECTION 9: Physical and chemical properties

Evaporation rate	: SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2	Not available. Not available. Not available. Not available. Not available. Not available.
Flammability (solid, gas)	: SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Upper/lower flammability or explosive limits	: SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2	Not available. Not available. Not available. Not available. Not available. Not available.
Vapour pressure	: SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2	Not available. Not available. Not available. Not available. Not available. Not available.
Vapour density	: SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2	Not available. Not available. Not available. Not available. Not available. Not available.
Relative density	: SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer 2	Not available. Not available. Not available. Not available. Not available. Not available.

SECTION 9: Physical and chemical properties

Solubility(ies)	: SureSelect Hyb 1	Easily soluble in the following materials: cold water and hot water.
	SureSelect Hyb 2	Easily soluble in the following materials: cold water and hot water.
	SureSelect Hyb 4	Easily soluble in the following materials: cold water and hot water.
	SureSelect Binding Buffer	Easily soluble in the following materials: cold water and hot water.
	SureSelect Wash Buffer 1	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	SureSelect Wash Buffer 2	Easily soluble in the following materials: cold water and hot water.
	: SureSelect Hyb 1	Not available.
	SureSelect Hyb 2	Not available.
	SureSelect Hyb 4	Not available.
	SureSelect Binding Buffer	Not available.
Auto-ignition temperature	SureSelect Wash Buffer 1	Not available.
	SureSelect Wash Buffer 2	Not available.
	: SureSelect Hyb 1	Not available.
	SureSelect Hyb 2	Not available.
	SureSelect Hyb 4	Not available.
Decomposition temperature	SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	Not available.
	SureSelect Wash Buffer 2	Not available.
	: SureSelect Hyb 1	Not available.
	SureSelect Hyb 2	Not available.
Viscosity	SureSelect Hyb 4	Not available.
	SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	Not available.
	SureSelect Wash Buffer 2	Not available.
	: SureSelect Hyb 1	Not available.
Explosive properties	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

Oxidising properties	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.	

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 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.
10.2 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.
10.3 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.
10.4 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.

SECTION 10: Stability and reactivity

10.5 Incompatible materials	: SureSelect Hyb 1	May react or be incompatible with oxidising materials.
	SureSelect Hyb 2	May react or be incompatible with oxidising materials.
	SureSelect Hyb 4	May react or be incompatible with oxidising materials.
	SureSelect Binding Buffer	May react or be incompatible with oxidising materials.
	SureSelect Wash Buffer 1	May react or be incompatible with oxidising materials.
	SureSelect Wash Buffer 2	May react or be incompatible with oxidising materials.

10.6 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

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
SureSelect Hyb 1 Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-
SureSelect Hyb 2 Disodium dihydrogen ethylenediaminetetraacetate	LD50 Oral	Rat	2 g/kg	-
SureSelect Hyb 4 Sulfuric acid monododecyl ester sodium salt (1:1)	LD50 Oral	Rat	1288 mg/kg	-
SureSelect Binding Buffer Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-

Acute toxicity estimates

Route	ATE value
SureSelect Hyb 2 Oral Inhalation (dusts and mists)	13698.6 mg/kg 10.27 mg/l
SureSelect Hyb 4 Oral Inhalation (dusts and mists)	128800 mg/kg 150 mg/l

Irritation/Corrosion

SureSelect Target Enrichment Box 1-96 Reactions, Part Number 5190-8646

SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
SureSelect 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	-
SureSelect 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	-

Sensitiser

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
SureSelect Hyb 4 Sulfuric acid monododecyl ester sodium salt (1:1)	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
SureSelect Hyb 2 Disodium dihydrogen ethylenediaminetetraacetate	Category 2	Inhalation	respiratory tract

Aspiration hazard

Not available.

Information on likely routes of exposure

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

Potential acute health effects

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 11: Toxicological information

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.
	Skin contact	: SureSelect Hyb 1
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.
Eye contact		: SureSelect Hyb 1
	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.

Symptoms related to the physical, chemical and toxicological characteristics

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.
	Ingestion	: SureSelect Hyb 1
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
	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.

SECTION 11: Toxicological information

Eye contact	: SureSelect Hyb 1	Adverse symptoms may include the following: pain or irritation watering redness
	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 as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

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

SureSelect Target Enrichment Box 1-96 Reactions, Part Number 5190-8646

SECTION 11: Toxicological information

Teratogenicity	:	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.
Developmental effects	:	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.
Fertility effects	:	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 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
SureSelect Hyb 1 Sodium chloride	Acute EC50 4.74 g/L Fresh water	Algae - Chlamydomonas reinhardtii	96 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute EC50 402600 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic LC10 781 mg/l Fresh water	Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	3 weeks
	Chronic NOEC 6 g/L Fresh water Chronic NOEC 0.314 g/L Fresh water Chronic NOEC 100 mg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia pulex Fish - Gambusia holbrooki - Adult	96 hours 21 days 8 weeks
SureSelect Hyb 2 Disodium dihydrogen ethylenediaminetetraacetate	Acute LC50 320 mg/l Fresh water	Fish	96 hours
SureSelect Binding Buffer Sodium chloride	Acute EC50 4.74 g/L Fresh water	Algae - Chlamydomonas reinhardtii	96 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute EC50 402600 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic LC10 781 mg/l Fresh water	Crustaceans - Hyalella azteca -	3 weeks

SureSelect Target Enrichment Box 1-96 Reactions, Part Number 5190-8646

SECTION 12: Ecological information

	Chronic NOEC 6 g/L Fresh water Chronic NOEC 0.314 g/L Fresh water Chronic NOEC 100 mg/l Fresh water	Juvenile (Fledgling, Hatchling, Weanling) Aquatic plants - Lemna minor Daphnia - Daphnia pulex Fish - Gambusia holbrooki - Adult	96 hours 21 days 8 weeks
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12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
SureSelect Hyb 2 Disodium dihydrogen ethylenediaminetetraacetate	-4.3	1.8	low

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : 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.

SureSelect Target Enrichment Box 1-96 Reactions, Part Number 5190-8646

SECTION 14: Transport information

ADR/RID / IMDG / IATA : Not regulated.

14.6 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.

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

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	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.

Other EU regulations

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

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

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	: Not determined.
Canada	: Not determined.
China	: Not determined.
Europe	: Not determined.

Date of issue/Date of revision : 21/01/2018

27/29

SureSelect Target Enrichment Box 1-96 Reactions, Part Number 5190-8646

SECTION 15: Regulatory information

Japan	: Japan inventory (ENCS): All components are listed or exempted. Japan inventory (ISHL): All components are listed or exempted.
Malaysia	: Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: Not determined.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
SureSelect Hyb 1 Eye Irrit. 2, H319	Calculation method
SureSelect Hyb 2 STOT RE 2, H373	Calculation method

Full text of abbreviated H statements

SureSelect Hyb 1 H319	Causes serious eye irritation.
SureSelect Hyb 2 H302 H332 H373 (inhalation) H373	Harmful if swallowed. Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure if inhaled. May cause damage to organs through prolonged or repeated exposure.
SureSelect Hyb 4 H302 H315 H319 H332 H335 H400 H412	Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation. Very toxic to aquatic life. Harmful to aquatic life with long lasting effects.
SureSelect Binding Buffer H319	Causes serious eye irritation.

Date of issue/Date of revision : 21/01/2018

28/29

SureSelect Target Enrichment Box 1-96 Reactions, Part Number 5190-8646

SECTION 16: Other information

[Full text of classifications \[CLP/GHS\]](#)

<p>SureSelect Hyb 1 Eye Irrit. 2, H319</p>	<p>SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2</p>
<p>SureSelect Hyb 2 Acute Tox. 4, H302 Acute Tox. 4, H332 STOT RE 2, H373 (inhalation) STOT RE 2, H373</p>	<p>ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE (inhalation) - Category 2 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2</p>
<p>SureSelect Hyb 4 Acute Tox. 4, H302 Acute Tox. 4, H332 Aquatic Acute 1, H400 Aquatic Chronic 3, H412 Eye Irrit. 2, H319 Skin Irrit. 2, H315 STOT SE 3, H335</p>	<p>ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3</p>
<p>SureSelect Binding Buffer Eye Irrit. 2, H319</p>	<p>SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2</p>

Date of issue/ Date of revision : 21/01/2018

Date of previous issue : No previous validation.

Version : 1

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