

SAFETY DATA SHEET

SureSelect Target Enrichment-Box 1 - 480 Reactions, Part Number 5190-4395

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

1.1 Product identifier

Product name	: SureSelect Target Enrichment-Box 1 - 480 Reactions, Part Number 5190-4395		
Part no. (chemical kit)	: 5190-4395		
Part no.	: SureSelect Hyb 1	5190-4412	
	SureSelect Hyb 2	5190-4397	
	SureSelect Hyb 4	5190-4414	
	SureSelect Binding Buffer	5190-4415	
	SureSelect Wash Buffer 1	5190-4416	
	SureSelect Wash Buffer	5190-4417	
	SureSelect Elution Buffer	5190-4418	
	SureSelect Neutralization Buffer	5190-4419	

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

Identified uses	: Analytical reagent.		
	SureSelect Hyb 1	12 ml	
	SureSelect Hyb 2	1.25 ml	
	SureSelect Hyb 4	6.25 ml	
	SureSelect Binding Buffer	400 ml	
	SureSelect Wash Buffer 1	240 ml	
	SureSelect Wash Buffer	720 ml	
	SureSelect Elution Buffer	29 ml	
	SureSelect Neutralization Buffer	29 ml	

Uses advised against : None known.

1.3 Details of the supplier of the safety data sheet

Agilent Technologies LDA UK Ltd.
5500 Lakeside Cheadle Royal Business Park,
Cheadle, Cheshire, SK8 3GR
United Kingdom
Tel: +44 (0) 345 712 5292

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	Mixture
	SureSelect Elution Buffer	Mixture

SECTION 2: Hazards identification

SureSelect Mixture
Neutralization Buffer

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

SureSelect Hyb 2
H319 SERIOUS EYE DAMAGE/EYE IRRITATION Category 2

SureSelect Elution Buffer
H290 CORROSIVE TO METALS Category 1

Ingredients of unknown toxicity :

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

Ingredients of unknown ecotoxicity :

- SureSelect Hyb 4 Contains 1% of components with unknown hazards to the aquatic environment

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 2



SureSelect Elution Buffer



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 No signal word.
- SureSelect Elution Buffer Warning
- SureSelect Neutralization Buffer No signal word.

Hazard statements :

- SureSelect Hyb 1 No known significant effects or critical hazards.
- SureSelect Hyb 2 H319 - 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 No known significant effects or critical hazards.
- SureSelect Elution Buffer H290 - May be corrosive to metals.
- SureSelect Neutralization Buffer No known significant effects or critical hazards.

Precautionary statements

SECTION 2: Hazards identification

Prevention	:	SureSelect Hyb 1	Not applicable.
		SureSelect Hyb 2	P280 - Wear eye or face protection.
		SureSelect Hyb 4	Not applicable.
		SureSelect Binding Buffer	Not applicable.
		SureSelect Wash Buffer 1	Not applicable.
		SureSelect Wash Buffer	Not applicable.
		SureSelect Elution Buffer	P234 - Keep only in original packaging.
		SureSelect Neutralization Buffer	Not applicable.
Response	:	SureSelect Hyb 1	Not applicable.
		SureSelect Hyb 2	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
		SureSelect Hyb 4	Not applicable.
		SureSelect Binding Buffer	Not applicable.
		SureSelect Wash Buffer 1	Not applicable.
		SureSelect Wash Buffer	Not applicable.
		SureSelect Elution Buffer	P390 - Absorb spillage to prevent material damage.
		SureSelect Neutralization Buffer	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	Not applicable.
		SureSelect Elution Buffer	Not applicable.
		SureSelect Neutralization Buffer	Not applicable.
Disposal	:	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	Not applicable.
		SureSelect Elution Buffer	Not applicable.
		SureSelect Neutralization Buffer	Not applicable.
Hazardous ingredients	:	SureSelect Hyb 2	Not applicable.
		SureSelect Hyb 4	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	Not applicable.
		SureSelect Wash Buffer 1	Not applicable.
		SureSelect Wash Buffer	Not applicable.
		SureSelect Elution Buffer	Not applicable.
		SureSelect Neutralization Buffer	Not applicable.

SECTION 2: Hazards identification

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	Not applicable.
	SureSelect Elution Buffer	Not applicable.
	SureSelect	Not applicable.
	Neutralization Buffer	

Special packaging requirements

Containers to be fitted with child-resistant fastenings	: 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	Not applicable.
	SureSelect Elution Buffer	Not applicable.
	SureSelect	Not applicable.
	Neutralization Buffer	

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	Not applicable.
	SureSelect Elution Buffer	Not applicable.
	SureSelect	Not applicable.
	Neutralization Buffer	

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	: SureSelect Hyb 1	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	SureSelect Hyb 2	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	SureSelect Hyb 4	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	SureSelect Binding Buffer	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	SureSelect Wash Buffer 1	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	SureSelect Wash Buffer	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	SureSelect Elution Buffer	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	SureSelect	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	Neutralization Buffer	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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	None known.
	SureSelect Elution Buffer	None known.

SECTION 2: Hazards identification

SureSelect None known.
Neutralization Buffer

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	Mixture
	SureSelect Elution Buffer	Mixture
	SureSelect Neutralization Buffer	Mixture

Product/ingredient name	Identifiers	%	Classification	Type
<input checked="" type="checkbox"/> SureSelect Hyb 2 edetic acid	EC: 200-449-4 CAS: 60-00-4 Index: 607-429-00-8	≥10 - ≤25	Eye Irrit. 2, H319	[1]
<input checked="" type="checkbox"/> SureSelect Hyb 4 Sulfuric acid monododecyl ester sodium salt (1:1)	CAS: 8012-56-4	≤3	Acute Tox. 4, H302 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, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

<input checked="" type="checkbox"/> SureSelect Hyb 2	[1] Substance classified with a health or environmental hazard
SureSelect Hyb 4	[1] Substance classified with a health or environmental hazard

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

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. 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. Check for and remove any contact lenses. Get medical attention if irritation occurs.
		SureSelect Wash 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 Elution 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 Neutralization 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.

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Inhalation	: 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 if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	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	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	SureSelect Elution Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
	SureSelect Neutralization Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	: 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. Get medical attention if symptoms occur. 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	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureSelect Elution Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureSelect Neutralization Buffer	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 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 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	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 Elution 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.
	SureSelect Neutralization 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.
Protection of first-aiders	: 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	No action shall be taken involving any personal risk or without suitable training.
	SureSelect Elution Buffer	No action shall be taken involving any personal risk or without suitable training.
	SureSelect Neutralization Buffer	No action shall be taken involving any personal risk or without suitable training.

SECTION 4: First aid measures

4.2 Most important symptoms and effects, both acute and delayed

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	No specific data.		
		SureSelect Elution Buffer	No specific data.		
		SureSelect Neutralization Buffer	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			No specific data.		
SureSelect Elution Buffer			No specific data.		
SureSelect Neutralization Buffer			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	No specific data.			
	SureSelect Elution Buffer	No specific data.			
	SureSelect Neutralization Buffer	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			No specific data.		
SureSelect Elution Buffer			No specific data.		
SureSelect Neutralization Buffer			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.
		SureSelect Wash Buffer	Treat symptomatically. Contact poison treatment specialist

SECTION 4: First aid measures

	1	immediately if large quantities have been ingested or inhaled.
	SureSelect Wash Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureSelect Elution Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureSelect Neutralization Buffer	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: 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	No specific treatment.
	SureSelect Elution Buffer	No specific treatment.
	SureSelect Neutralization Buffer	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	Use an extinguishing agent suitable for the surrounding fire.
	SureSelect Elution Buffer	Use an extinguishing agent suitable for the surrounding fire.
	SureSelect Neutralization Buffer	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	None known.
	SureSelect Elution Buffer	None known.
	SureSelect Neutralization Buffer	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	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureSelect Elution Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureSelect	In a fire or if heated, a pressure increase will occur and the

SECTION 5: Firefighting measures

Hazardous combustion products	Neutralization Buffer	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	Decomposition products may include the following materials: carbon dioxide 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	No specific data.
	SureSelect Elution Buffer	No specific data.
	SureSelect Neutralization Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds

5.3 Advice for firefighters

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	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 Elution 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 Neutralization 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.
	Special protective equipment for fire-fighters	: SureSelect Hyb 1
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

SECTION 5: Firefighting measures

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

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: 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. 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	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 Elution 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 Neutralization 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.

SECTION 6: Accidental release measures

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".
- SureSelect Wash 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 Elution 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 Neutralization 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".

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 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 Elution 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 Neutralization 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

SECTION 6: Accidental release measures

(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	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 Elution Buffer	Stop leak if without risk. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Move containers from spill area. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.
	SureSelect Neutralization 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.

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).
	SureSelect Hyb 2	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 4	Put on appropriate personal protective equipment (see Section 8).

SECTION 7: Handling and storage

Advice on general occupational hygiene

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	Put on appropriate personal protective equipment (see Section 8).
SureSelect Elution Buffer	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.
SureSelect Neutralization Buffer	Put on appropriate personal protective equipment (see Section 8).
: 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 8 for additional information on hygiene measures.
SureSelect Wash 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 Elution 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 Neutralization 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.

SECTION 7: Handling and storage

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	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 Elution Buffer	Store in accordance with local regulations. Store in original

SECTION 7: Handling and storage

SureSelect Neutralization Buffer	<p>container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Separate from acids. Keep away from metals. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p> <p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p>
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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	Industrial applications, Professional applications.
SureSelect Elution Buffer	Industrial applications, Professional applications.
SureSelect Neutralization Buffer	Industrial applications, Professional applications.

Industrial sector specific solutions

: 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	Not available.
SureSelect Elution Buffer	Not available.
SureSelect Neutralization Buffer	Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures

: Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Exposure	Value	Population	Effects
SureSelect Hyb 2 edetic acid	DNEL	Long term Inhalation	0.6 mg/m ³	General population	Local
	DNEL	Short term Inhalation	1.2 mg/m ³	General population	Local
	DNEL	Long term Inhalation	1.5 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	1.5 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	3 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	3 mg/m ³	Workers	Systemic
	DNEL	Long term Oral	25 mg/kg bw/day	General population	Systemic

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

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

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

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

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

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

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

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 Buffer	Liquid.
	SureSelect Wash Buffer 1	Liquid.
	SureSelect Wash Buffer	Liquid.
	SureSelect Elution Buffer	Liquid.
	SureSelect Neutralization Buffer	Liquid.
	Colour	: SureSelect Hyb 1
SureSelect Hyb 2		Not available.
SureSelect Hyb 4		Not available.
SureSelect Binding Buffer		Not available.
SureSelect Wash Buffer 1		Not available.
SureSelect Wash Buffer		Not available.
SureSelect Elution Buffer		Not available.
SureSelect Neutralization Buffer		Not available.
Odour		: SureSelect Hyb 1
	SureSelect Hyb 2	Not available.
	SureSelect Hyb 4	Not available.
	SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	Not available.
	SureSelect Wash Buffer	Not available.
	SureSelect Elution Buffer	Not available.
	SureSelect Neutralization Buffer	Not available.
	Odour threshold	: SureSelect Hyb 1
SureSelect Hyb 2		Not available.
SureSelect Hyb 4		Not available.
SureSelect Binding Buffer		Not available.
SureSelect Wash Buffer 1		Not available.
SureSelect Wash Buffer		Not available.
SureSelect Elution Buffer		Not available.
SureSelect Neutralization Buffer		Not available.
Melting point/freezing point		: SureSelect Hyb 1
	SureSelect Hyb 2	Not available.
	SureSelect Hyb 4	0°C
	SureSelect Binding Buffer	Not available.
	SureSelect Wash Buffer 1	0°C
	SureSelect Wash Buffer	0°C
	SureSelect Elution Buffer	0°C
	SureSelect Neutralization Buffer	Not available.

SECTION 9: Physical and chemical properties

Initial boiling point and boiling range : SureSelect Hyb 1 Not available.
 SureSelect Hyb 2 Not available.
 SureSelect Hyb 4 100°C
 SureSelect Binding Not available.
 Buffer
 SureSelect Wash Buffer 1 100°C
 SureSelect Wash Buffer 100°C
 SureSelect Elution Buffer 100°C
 SureSelect Not available.
 Neutralization Buffer

Flammability : SureSelect Hyb 1 Not applicable.
 SureSelect Hyb 2 Not applicable.
 SureSelect Hyb 4 Not applicable.
 SureSelect Binding Not applicable.
 Buffer
 SureSelect Wash Buffer 1 Not applicable.
 SureSelect Wash Buffer Not applicable.
 SureSelect Elution Buffer Not applicable.
 SureSelect Not applicable.
 Neutralization Buffer

Upper/lower flammability or explosive limits : SureSelect Hyb 1 Not available.
 SureSelect Hyb 2 Not available.
 SureSelect Hyb 4 Not available.
 SureSelect Binding Not available.
 Buffer
 SureSelect Wash Buffer 1 Not available.
 SureSelect Wash Buffer Not available.
 SureSelect Elution Buffer Not available.
 SureSelect Not available.
 Neutralization Buffer

Flash point :

Ingredient name	Closed cup		Open cup	
	°C	Method	°C	Method
SureSelect Hyb 2 edetic acid	>100	DIN 51758	-	-

Auto-ignition temperature :

Ingredient name	°C	Method
SureSelect Hyb 2 edetic acid	>400	VDI 2263

Decomposition temperature : SureSelect Hyb 1 Not available.
 SureSelect Hyb 2 Not available.
 SureSelect Hyb 4 Not available.
 SureSelect Binding Not available.
 Buffer
 SureSelect Wash Buffer 1 Not available.
 SureSelect Wash Buffer Not available.
 SureSelect Elution Buffer Not available.
 SureSelect Not available.
 Neutralization Buffer

pH : SureSelect Hyb 1 7.4
 SureSelect Hyb 2 8
 SureSelect Hyb 4 5.2 to 6.2
 SureSelect Binding 7.1 to 8.1
 Buffer
 SureSelect Wash Buffer 1 6.5 to 7.5

SECTION 9: Physical and chemical properties

SureSelect Wash Buffer 6.8 to 7.8
 SureSelect Elution Buffer 12.2 to 13.4
 SureSelect 7.5
 Neutralization Buffer

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 Not available.
 SureSelect Elution Buffer Not available.
 SureSelect Not available.
 Neutralization Buffer

Solubility(ies)	Media	Result
	SureSelect Hyb 1 water	Soluble
	SureSelect Hyb 2 water	Soluble
	SureSelect Hyb 4 water	Soluble
	SureSelect Binding Buffer water	Soluble
	SureSelect Wash Buffer 1 water	Soluble
	SureSelect Wash Buffer water	Soluble
	SureSelect Elution Buffer water	Soluble
	SureSelect Neutralization Buffer 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 Not applicable.
 SureSelect Elution Buffer Not applicable.
 SureSelect Not applicable.
 Neutralization Buffer

Vapour pressure	Ingredient name	Vapour Pressure at 20°C			Vapour 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	-
	edetic acid	0	0	-	-	-	-
	SureSelect Hyb 4 water	17.5	2.3	-	92.258	12.3	-

SECTION 9: Physical and chemical properties

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							
water	17.5	2.3	-		92.258	12.3	-
SureSelect Elution Buffer							
water	17.5	2.3	-		92.258	12.3	-
SureSelect Neutralization Buffer							
water	17.5	2.3	-		92.258	12.3	-

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 Not available.
 SureSelect Elution Buffer Not available.
 SureSelect Neutralization Buffer 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 Not available.
 SureSelect Elution Buffer Not available.
 SureSelect Neutralization Buffer Not available.

Vapour 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 Not available.
 SureSelect Elution Buffer Not available.
 SureSelect Neutralization Buffer Not available.

SECTION 9: Physical and chemical properties

Explosive 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	Not available.
	SureSelect Elution Buffer	Not available.
	SureSelect Neutralization Buffer	Not available.

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	Not available.
	SureSelect Elution Buffer	Not available.
	SureSelect Neutralization Buffer	Not available.

Particle characteristics

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	Not applicable.
	SureSelect Elution Buffer	Not applicable.
	SureSelect Neutralization Buffer	Not applicable.

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	No specific test data related to reactivity available for this product or its ingredients.
	SureSelect Elution Buffer	No specific test data related to reactivity available for this product or its ingredients.
	SureSelect Neutralization Buffer	No specific test data related to reactivity available for this product or its ingredients.

SECTION 10: Stability and reactivity

10.2 Chemical stability	:	SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer SureSelect Elution Buffer SureSelect Neutralization Buffer	The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	:	SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer SureSelect Elution Buffer SureSelect Neutralization Buffer	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer SureSelect Elution Buffer SureSelect Neutralization Buffer	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
10.5 Incompatible materials	:	SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer SureSelect Elution Buffer SureSelect Neutralization Buffer	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. Reactive or incompatible with the following materials: acids metals May react or be incompatible with oxidising materials.
10.6 Hazardous decomposition products	:	SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous

SECTION 10: Stability and reactivity

Buffer	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	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureSelect Elution Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureSelect	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Neutralization Buffer	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

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
SureSelect Hyb 4					
SureSelect Hyb 4	128800.0	N/A	N/A	N/A	N/A
Sulfuric acid monododecyl ester sodium salt (1:1)	1288	N/A	N/A	N/A	N/A

Irritation/Corrosion

Conclusion/Summary : Not available.

Sensitiser

Conclusion/Summary : 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)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure

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

Potential acute health effects

SECTION 11: Toxicological information

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	No known significant effects or critical hazards.	
		SureSelect Elution Buffer	No known significant effects or critical hazards.	
		SureSelect Neutralization Buffer	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	No known significant effects or critical hazards.	
		SureSelect Elution Buffer	No known significant effects or critical hazards.	
		SureSelect Neutralization Buffer	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	No known significant effects or critical hazards.	
		SureSelect Elution Buffer	No known significant effects or critical hazards.	
		SureSelect Neutralization Buffer	No known significant effects or critical hazards.	
	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	No known significant effects or critical hazards.	
		SureSelect Elution Buffer	No known significant effects or critical hazards.	
		SureSelect Neutralization Buffer	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	No specific data.
		SureSelect Elution Buffer	No specific data.
		SureSelect Neutralization Buffer	No specific data.

SECTION 11: Toxicological information

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	No specific data.	
	SureSelect Elution Buffer	No specific data.	
	SureSelect Neutralization Buffer	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		No specific data.	
SureSelect Elution Buffer		No specific data.	
SureSelect Neutralization Buffer		No specific data.	
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	No specific data.	
	SureSelect Elution Buffer	No specific data.	
	SureSelect Neutralization Buffer	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

Conclusion/Summary : Not available.

General	: 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	No known significant effects or critical hazards.
	SureSelect Elution Buffer	No known significant effects or critical hazards.
	SureSelect Neutralization Buffer	No known significant effects or critical hazards.

SECTION 11: Toxicological information

Carcinogenicity	:	SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer SureSelect Elution Buffer SureSelect Neutralization 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. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	:	SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer SureSelect Elution Buffer SureSelect Neutralization 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. 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.
Reproductive toxicity	:	SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer SureSelect Elution Buffer SureSelect Neutralization 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. 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.
Other information	:	SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer SureSelect Elution Buffer SureSelect Neutralization Buffer	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
SureSelect Hyb 2 edetic acid	Acute EC50 113000 µg/l Fresh water	Daphnia - Water flea - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 41000 µg/l Fresh water	Fish - Bluegill - <i>Lepomis macrochirus</i>	96 hours

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

SECTION 12: Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
SureSelect Hyb 2 edetic acid	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
SureSelect Hyb 2 edetic acid	-3.86	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

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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 : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

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. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-

SECTION 14: Transport information

14.5 Environmental hazards	No.	No.	No.
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Additional information

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 IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture UK (GB)/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.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

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

No listed substance

Label	: SureSelect Hyb 1 SureSelect Hyb 2 SureSelect Hyb 4 SureSelect Binding Buffer SureSelect Wash Buffer 1 SureSelect Wash Buffer SureSelect Elution Buffer SureSelect Neutralization Buffer	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
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Seveso Directive

This product is not controlled under the Seveso Directive.

EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

SECTION 15: Regulatory information

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

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

United States : Not determined.

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]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification

Classification	Justification
SureSelect Hyb 2 Eye Irrit. 2, H319	Calculation method
SureSelect Elution Buffer Met. Corr. 1, H290	Expert judgment

Full text of abbreviated H statements

SureSelect Hyb 2 H319	Causes serious eye irritation.
SureSelect Hyb 4 H302	Harmful if swallowed.
SureSelect Elution Buffer H290	May be corrosive to metals.

Full text of classifications

SECTION 16: Other information

SureSelect Hyb 2 Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
SureSelect Hyb 4 Acute Tox. 4	ACUTE TOXICITY - Category 4
SureSelect Elution Buffer Met. Corr. 1	CORROSIVE TO METALS - Category 1

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