

SAFETY DATA SHEET



SureSelect XT2 Pre-Capture ILM Module Box 2, Part Number 5190-3940

Section 1. Identification

1.1 Product identifier

Product name : SureSelect XT2 Pre-Capture ILM Module Box 2, Part Number 5190-3940
Part no. (chemical kit) : 5190-3940
Part no. : SureSelect RNase Block 5190-4383 / 5190-4386
 SureSelect XT2 Hybridization Buffer 5190-4078 / 5190-4082 / 5190-4086
 SureSelect XT2 Blocking Mix 5190-4079 / 5190-4083 / 5190-4087
Validation date : 6/2/2022

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

Material uses : Analytical reagent.
 SureSelect RNase Block 16 µl - 96 µl
 SureSelect XT2 Hybridization Buffer 37 µl - 2220 µl
 SureSelect XT2 Blocking Mix 9 µl - 540 µl

1.3 Details of the supplier of the safety data sheet

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

1.4 Emergency telephone number

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

Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status : SureSelect RNase Block This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 SureSelect XT2 Hybridization Buffer This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 SureSelect XT2 Blocking Mix While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture


SureSelect RNase Block
 H320 EYE IRRITATION - Category 2B

SureSelect XT2 Hybridization Buffer
 H319 EYE IRRITATION - Category 2A

SureSelect XT2 Hybridization Buffer Percentage of the mixture consisting of ingredient (s) of unknown hazards to the aquatic environment: 1.4%

2.2 GHS label elements

Section 2. Hazards identification

Hazard pictograms	: SureSelect XT2 Hybridization Buffer	
Signal word	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	Warning Warning No signal word.
Hazard statements	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	H320 - Causes eye irritation. H319 - Causes serious eye irritation. No known significant effects or critical hazards.
Precautionary statements		
Prevention	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	Not applicable. P280 - Wear eye or face protection. Not applicable.
Response	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	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. 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. Not applicable.
Storage	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	Not applicable. Not applicable. Not applicable.
Disposal	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	Not applicable. Not applicable. Not applicable.
Supplemental label elements	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	None known. None known. None known.
2.3 Other hazards		
Hazards not otherwise classified	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	None known. None known. None known.

Section 3. Composition/information on ingredients

Substance/mixture	: SureSelect RNase Block	Mixture
	SureSelect XT2 Hybridization Buffer	Mixture
	SureSelect XT2 Blocking Mix	Mixture

Ingredient name	%	CAS number
SureSelect RNase Block Glycerol	≥50 - ≤75	56-81-5
SureSelect XT2 Hybridization Buffer Sodium chloride	≤10	7647-14-5
Sodium dodecyl sulphate	≤3	151-21-3
Sodium hydroxide	<0.7	1310-73-2

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

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

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

Section 4. First aid measures

4.1 Description of necessary first aid measures

Eye contact	: SureSelect RNase Block	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. If irritation persists, get medical attention.
	SureSelect XT2 Hybridization Buffer	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 XT2 Blocking Mix	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 RNase Block	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 XT2 Hybridization Buffer	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

Section 4. First aid measures

	SureSelect XT2 Blocking Mix	collar, tie, belt or waistband. 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 RNase Block	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 XT2 Hybridization Buffer	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.
Ingestion	SureSelect XT2 Blocking Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	: SureSelect RNase Block	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 XT2 Hybridization Buffer	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 XT2 Blocking Mix	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.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Section 4. First aid measures

Eye contact	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	Causes eye irritation. Causes serious eye irritation. No known significant effects or critical hazards.
Inhalation	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	Adverse symptoms may include the following: irritation watering redness Adverse symptoms may include the following: pain or irritation watering redness No specific data.
Inhalation	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	No specific data. No specific data. No specific data.
Skin contact	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	No specific data. No specific data. No specific data.
Ingestion	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	No specific data. No specific data. No specific data.

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

Notes to physician	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. 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 RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	No specific treatment. No specific treatment. No specific treatment.

Section 4. First aid measures

Protection of first-aiders	: SureSelect RNase Block	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 XT2 Hybridization Buffer	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 XT2 Blocking Mix	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	: SureSelect RNase Block	Use an extinguishing agent suitable for the surrounding fire.
	SureSelect XT2 Hybridization Buffer	Use an extinguishing agent suitable for the surrounding fire.
	SureSelect XT2 Blocking Mix	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: SureSelect RNase Block	None known.
	SureSelect XT2 Hybridization Buffer	None known.
	SureSelect XT2 Blocking Mix	None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	: SureSelect RNase Block	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureSelect XT2 Hybridization Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureSelect XT2 Blocking Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: SureSelect RNase Block	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	SureSelect XT2 Hybridization Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides phosphorus oxides halogenated compounds metal oxide/oxides
	SureSelect XT2 Blocking Mix	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides

5.3 Advice for firefighters

Section 5. Fire-fighting measures

Special protective actions for fire-fighters	: SureSelect RNase Block	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 XT2 Hybridization 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 XT2 Blocking Mix	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 RNase Block	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	SureSelect XT2 Hybridization 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 XT2 Blocking Mix	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 RNase Block	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	SureSelect XT2 Hybridization Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	SureSelect XT2 Blocking Mix	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders	: SureSelect RNase Block	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	SureSelect XT2 Hybridization Buffer	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Section 6. Accidental release measures

SureSelect XT2 Blocking Mix

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

6.2 Environmental precautions

: SureSelect RNase Block

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

SureSelect XT2 Hybridization Buffer

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

SureSelect XT2 Blocking Mix

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : SureSelect RNase Block

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 XT2 Hybridization 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 XT2 Blocking Mix

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

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures : SureSelect RNase Block

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

SureSelect XT2 Hybridization Buffer

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

Section 7. Handling and storage

<p>Advice on general occupational hygiene</p>	<p>SureSelect XT2 Blocking Mix</p> <p>: SureSelect RNase Block</p>	<p>not reuse container.</p> <p>Put on appropriate personal protective equipment (see Section 8).</p> <p>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.</p>
	<p>SureSelect XT2 Hybridization Buffer</p>	<p>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.</p>
	<p>SureSelect XT2 Blocking Mix</p>	<p>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.</p>
<p>7.2 Conditions for safe storage, including any incompatibilities</p>	<p>: SureSelect RNase Block</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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p>
	<p>SureSelect XT2 Hybridization Buffer</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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p>
	<p>SureSelect XT2 Blocking Mix</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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p>

Section 7. Handling and storage

7.3 Specific end use(s)

Recommendations	: SureSelect RNase Block	Industrial applications, Professional applications.
	SureSelect XT2 Hybridization Buffer	Industrial applications, Professional applications.
	SureSelect XT2 Blocking Mix	Industrial applications, Professional applications.
Industrial sector specific solutions	: SureSelect RNase Block	Not available.
	SureSelect XT2 Hybridization Buffer	Not available.
	SureSelect XT2 Blocking Mix	Not available.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
SureSelect RNase Block Glycerol	OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 10 mg/m ³ 8 hours. Form: Total dust OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust
SureSelect XT2 Hybridization Buffer Sodium chloride Sodium dodecyl sulphate Sodium hydroxide	None. None. ACGIH TLV (United States, 1/2021). C: 2 mg/m ³ OSHA PEL 1989 (United States, 3/1989). CEIL: 2 mg/m ³ NIOSH REL (United States, 10/2020). CEIL: 2 mg/m ³ OSHA PEL (United States, 5/2018). TWA: 2 mg/m ³ 8 hours.

8.2 Exposure controls

Appropriate engineering controls	: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
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Section 8. Exposure controls/personal protection

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

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

Appearance

Physical state	SureSelect RNase Block	Liquid.
	SureSelect XT2 Hybridization Buffer	Liquid.
	SureSelect XT2 Blocking Mix	Liquid.
Color	SureSelect RNase Block	Not available.
	SureSelect XT2 Hybridization Buffer	Not available.
	SureSelect XT2 Blocking Mix	Not available.
Odor	SureSelect RNase Block	Not available.
	SureSelect XT2 Hybridization Buffer	Not available.
	SureSelect XT2 Blocking Mix	Not available.
Odor threshold	SureSelect RNase Block	Not available.
	SureSelect XT2 Hybridization Buffer	Not available.
	SureSelect XT2 Blocking Mix	Not available.
pH	SureSelect RNase Block	7.6
	SureSelect XT2 Hybridization Buffer	7.4
	SureSelect XT2 Blocking Mix	7.5
Melting point/freezing point	SureSelect RNase Block	Not available.
	SureSelect XT2 Hybridization Buffer	Not available.
	SureSelect XT2 Blocking Mix	0°C (32°F)
Boiling point, initial boiling point, and boiling range	SureSelect RNase Block	Not available.
	SureSelect XT2 Hybridization Buffer	Not available.
	SureSelect XT2 Blocking Mix	100°C (212°F)

Section 9. Physical and chemical properties and safety characteristics

Flash point	Ingredient name	Closed cup			Open cup		
		°C	°F	Method	°C	°F	Method
	SureSelect RNase Block (R*,R*) -1,4-Dimercaptobutane- 2,3-diol Glycerol	>110	>230		177	350.6	
	SureSelect XT2 Hybridization Buffer Acetic acid, (ethylenedinitrilo)tetra-, disodium salt, dihydrate	>100	>212				
	Edetic acid	>100	>212	DIN 51758			
	SureSelect XT2 Blocking Mix Edetic acid	>100	>212	DIN 51758			

Evaporation rate : SureSelect RNase Block Not available.
 SureSelect XT2 Hybridization Buffer Not available.
 SureSelect XT2 Blocking Mix Not available.

Flammability : SureSelect RNase Block Not applicable.
 SureSelect XT2 Hybridization Buffer Not applicable.
 SureSelect XT2 Blocking Mix Not applicable.

Lower and upper explosion limit/flammability limit : SureSelect RNase Block Not available.
 SureSelect XT2 Hybridization Buffer Not available.
 SureSelect XT2 Blocking Mix Not available.

Vapor pressure	Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
		mm Hg	kPa	Method	mm Hg	kPa	Method
	SureSelect RNase Block water Glycerol	23.8 0.000075	3.2 0.00001		92.258 0.0025	12.3 0.00033	
	SureSelect XT2 Hybridization Buffer water Sodium dodecyl sulphate	23.8 ≤0.0013501	3.2 ≤0.00018		92.258	12.3	
	SureSelect XT2 Blocking Mix water 2-Amino-2-(hydroxymethyl)propane- 1,3-diol hydrochloride	23.8 0.000027	3.2 0.0000036		92.258 0.000007501	12.3 0.000001	

Section 9. Physical and chemical properties and safety characteristics

Relative vapor density	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	Not available. Not available. Not available.																																				
Relative density	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	Not available. Not available. Not available.																																				
Solubility	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water.																																				
Partition coefficient: n-octanol/water	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	Not applicable. Not applicable. Not applicable.																																				
Auto-ignition temperature	: <table border="1"> <thead> <tr> <th>Ingredient name</th> <th>°C</th> <th>°F</th> <th>Method</th> </tr> </thead> <tbody> <tr> <td colspan="4">SureSelect RNase Block</td> </tr> <tr> <td>Glycerol</td> <td>370</td> <td>698</td> <td></td> </tr> <tr> <td>4-(2-Hydroxyethyl)piperazin-1-ylethanesulphonic acid</td> <td>>400</td> <td>>752</td> <td>EU A.16</td> </tr> <tr> <td colspan="4">SureSelect XT2 Hybridization Buffer</td> </tr> <tr> <td>Sodium dodecyl sulphate</td> <td>310.5</td> <td>590.9</td> <td>VDI 2263</td> </tr> <tr> <td>Edetic acid</td> <td>>400</td> <td>>752</td> <td>VDI 2263</td> </tr> <tr> <td colspan="4">SureSelect XT2 Blocking Mix</td> </tr> <tr> <td>Edetic acid</td> <td>>400</td> <td>>752</td> <td>VDI 2263</td> </tr> </tbody> </table>	Ingredient name	°C	°F	Method	SureSelect RNase Block				Glycerol	370	698		4-(2-Hydroxyethyl)piperazin-1-ylethanesulphonic acid	>400	>752	EU A.16	SureSelect XT2 Hybridization Buffer				Sodium dodecyl sulphate	310.5	590.9	VDI 2263	Edetic acid	>400	>752	VDI 2263	SureSelect XT2 Blocking Mix				Edetic acid	>400	>752	VDI 2263	
Ingredient name	°C	°F	Method																																			
SureSelect RNase Block																																						
Glycerol	370	698																																				
4-(2-Hydroxyethyl)piperazin-1-ylethanesulphonic acid	>400	>752	EU A.16																																			
SureSelect XT2 Hybridization Buffer																																						
Sodium dodecyl sulphate	310.5	590.9	VDI 2263																																			
Edetic acid	>400	>752	VDI 2263																																			
SureSelect XT2 Blocking Mix																																						
Edetic acid	>400	>752	VDI 2263																																			
Decomposition temperature	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	Not available. Not available. Not available.																																				
Viscosity	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	Not available. Not available. Not available.																																				
Particle characteristics																																						
Median particle size	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	Not applicable. Not applicable. Not applicable.																																				

Section 10. Stability and reactivity

10.1 Reactivity	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
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Section 10. Stability and reactivity

10.2 Chemical stability	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	The product is stable. The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	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 RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	No specific data. No specific data. No specific data.
10.5 Incompatible materials	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials.
10.6 Hazardous decomposition products	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	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.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
SureSelect RNase Block Glycerol	LD50 Oral	Rat	12600 mg/kg	-
SureSelect XT2 Hybridization Buffer Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-
Sodium dodecyl sulphate	LD50 Oral	Rat	1288 mg/kg	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
SureSelect RNase Block Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
SureSelect XT2 Hybridization Buffer Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Sodium dodecyl sulphate	Eyes - Mild irritant	Rabbit	-	250 ug	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Skin - Mild irritant	Guinea pig	-	24 hours 25 mg	-
	Skin - Moderate irritant	Mouse	-	24 hours 25 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 50 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 25 mg	-
Sodium hydroxide	Eyes - Severe irritant	Rabbit	-	24 hours 50 ug	-
	Eyes - Severe irritant	Rabbit	-	1 %	-
	Eyes - Severe irritant	Rabbit	-	0.5 minutes 1 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 mg	-

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
SureSelect XT2 Hybridization Buffer Sodium dodecyl sulphate	Category 3	-	Respiratory tract irritation
Sodium hydroxide	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Section 11. Toxicological information

Aspiration hazard

Not available.

Information on the likely routes of exposure

: SureSelect RNase Block
 SureSelect XT2 Hybridization Buffer
 SureSelect XT2 Blocking Mix

Routes of entry anticipated: Oral, Dermal, Inhalation.

Routes of entry anticipated: Oral, Dermal, Inhalation.
 Not available.

Potential acute health effects

Eye contact

: SureSelect RNase Block
 SureSelect XT2 Hybridization Buffer
 SureSelect XT2 Blocking Mix

Causes eye irritation.
 Causes serious eye irritation.

Inhalation

: SureSelect RNase Block
 SureSelect XT2 Hybridization Buffer
 SureSelect XT2 Blocking Mix

No known significant effects or critical hazards.
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.

Skin contact

: SureSelect RNase Block
 SureSelect XT2 Hybridization Buffer
 SureSelect XT2 Blocking Mix

No known significant effects or critical hazards.
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.

Ingestion

: SureSelect RNase Block
 SureSelect XT2 Hybridization Buffer
 SureSelect XT2 Blocking Mix

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.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact

: SureSelect RNase Block
 SureSelect XT2 Hybridization Buffer
 SureSelect XT2 Blocking Mix

Adverse symptoms may include the following:
 irritation
 watering
 redness

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

Inhalation

: SureSelect RNase Block
 SureSelect XT2 Hybridization Buffer
 SureSelect XT2 Blocking Mix

No specific data.
 No specific data.
 No specific data.

Skin contact

: SureSelect RNase Block
 SureSelect XT2 Hybridization Buffer
 SureSelect XT2 Blocking Mix

No specific data.
 No specific data.

Ingestion

: SureSelect RNase Block
 SureSelect XT2 Hybridization Buffer
 SureSelect XT2 Blocking Mix

No specific data.
 No specific data.
 No specific data.

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

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Section 11. Toxicological information

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Reproductive toxicity	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
SureSelect RNase Block Glycerol	12600	N/A	N/A	N/A	N/A
SureSelect XT2 Hybridization Buffer SureSelect XT2 Hybridization Buffer	19924.5	N/A	N/A	N/A	50.7
Sodium chloride	3000	N/A	N/A	N/A	N/A
Sodium dodecyl sulphate	1288	N/A	N/A	N/A	1.5

Other information	: SureSelect RNase Block SureSelect XT2 Hybridization Buffer SureSelect XT2 Blocking Mix	Adverse symptoms may include the following: May cause skin sensitization. Not available. Not available.
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Section 12. Ecological information

12.1 Toxicity

Section 12. Ecological information

Product/ingredient name	Result	Species	Exposure
SureSelect RNase Block Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
SureSelect XT2 Hybridization Buffer Sodium chloride	Acute EC50 2430000 µg/l Fresh water Acute EC50 519.6 mg/l Fresh water Acute EC50 402.6 mg/l Fresh water Acute IC50 6.87 g/L Fresh water Acute LC50 1000000 µg/l Fresh water Chronic LC10 781 mg/l Fresh water	Algae - Navicula seminulum Crustaceans - Cypris subglobosa Daphnia - Daphnia magna Aquatic plants - Lemna minor Fish - Morone saxatilis - Larvae Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	96 hours 48 hours 48 hours 96 hours 96 hours 3 weeks
Sodium dodecyl sulphate	Chronic NOEC 6 g/L Fresh water Chronic NOEC 0.314 g/L Fresh water Chronic NOEC 100 mg/l Fresh water Acute EC50 1200 µg/l Marine water Acute LC50 900 µg/l Marine water Acute LC50 1400 µg/l Fresh water Acute LC50 590 µg/l Fresh water Chronic NOEC 1.25 mg/l Marine water Chronic NOEC 1 mg/l Fresh water Chronic NOEC 3.2 mg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia pulex Fish - Gambusia holbrooki - Adult Algae - Skeletonema costatum Crustaceans - Artemia salina - Adult Daphnia - Daphnia pulex - Neonate Fish - Cirrhinus mrigala - Larvae Algae - Ulva fasciata - Zoea Crustaceans - Pseudosida ramosa - Neonate Daphnia - Daphnia magna - Neonate	96 hours 21 days 8 weeks 96 hours 48 hours 48 hours 96 hours 96 hours 21 days 21 days
Sodium hydroxide	Chronic NOEC >1357 µg/l Fresh water Acute LC50 125 ppm Fresh water	Fish - Pimephales promelas Fish - Gambusia affinis - Adult	42 days 96 hours

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
SureSelect RNase Block Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
SureSelect XT2 Hybridization Buffer Sodium dodecyl sulphate	OECD 301B Ready Biodegradability - CO ₂ Evolution Test	95 % - Readily - 28 days	20 mg/l	Activated sludge

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
SureSelect XT2 Hybridization Buffer Sodium dodecyl sulphate Sodium hydroxide	- -	- -	Readily Readily

12.3 Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
SureSelect RNase Block Glycerol	-1.76	-	low
SureSelect XT2 Hybridization Buffer Sodium dodecyl sulphate	-2.03	-	low

12.4 Mobility in soil

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

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

Section 13. Disposal considerations

13.1 Waste treatment methods

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

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

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

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

Section 14. Transport information

DOT / TDG / Mexico / IMDG / IATA : Not regulated.

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

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

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

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined
 Clean Water Act (CWA) 311: Sodium hydroxide; Edetic acid; Potassium hydroxide

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

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : SureSelect RNase Block EYE IRRITATION - Category 2B
 SureSelect XT2 Hybridization Buffer EYE IRRITATION - Category 2A
 SureSelect XT2 Blocking Mix Not applicable.

Composition/information on ingredients

Name	%	Classification
SureSelect RNase Block Glycerol	≥50 - ≤75	EYE IRRITATION - Category 2B
SureSelect XT2 Hybridization Buffer Sodium chloride Sodium dodecyl sulphate	≤10 ≤3	EYE IRRITATION - Category 2A FLAMMABLE SOLIDS - Category 2 COMBUSTIBLE DUSTS ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Sodium hydroxide	<0.7	CORROSIVE TO METALS - Category 1 SKIN CORROSION - Category 1A SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 HNOC - Corrosive to digestive tract [severe]

State regulations

Massachusetts : The following components are listed: GLYCERINE MIST

New York : None of the components are listed.

New Jersey : The following components are listed: GLYCERIN; 1,2,3-PROPANETRIOL

Pennsylvania : The following components are listed: 1,2,3-PROPANETRIOL

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

Section 15. Regulatory information

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

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

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
SureSelect RNase Block EYE IRRITATION - Category 2B	Calculation method
SureSelect XT2 Hybridization Buffer EYE IRRITATION - Category 2A	Calculation method

History

Date of issue	: 06/02/2022
Date of previous issue	: 10/24/2019
Version	: 5

Key to abbreviations

: ATE = Acute Toxicity Estimate
: BCF = Bioconcentration Factor
: GHS = Globally Harmonized System of Classification and Labelling of Chemicals
: IATA = International Air Transport Association
: IBC = Intermediate Bulk Container
: IMDG = International Maritime Dangerous Goods
: LogPow = logarithm of the octanol/water partition coefficient
: MARPOL = International Convention for the Prevention of Pollution From Ships, 1973

Section 16. Other information

as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

UN = United Nations

✔ Indicates information that has changed from previously issued version.

[Notice to reader](#)

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