

SAFETY DATA SHEET



SureSelect Max Target Enrichment Kit Overnight Hyb Module, Box 2, 16_96 Hybs

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

1.1 Product identifier

Product name : SureSelect Max Target Enrichment Kit Overnight Hyb Module, Box 2, 16_96 Hybs
Part no. (chemical kit) : 5282-0133, 5282-0135
Part no. : SureSelect Hyb 3 5190-4382 / 5972-3696
 SureSelect RNase Block 5190-4383 / 5972-3700
 Amplification Master Mix 5271-0079 / 5271-0083

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

Identified uses : Analytical reagent.
 For research use only.
 SureSelect Hyb 3 0.16 ml / 0.4 ml
 SureSelect RNase Block 0.016 ml / 0.08 ml
 Amplification Master Mix 0.45 ml (16 reactions) / 2.84 (96 reactions)

Uses advised against : Not for use in diagnostic procedures.

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 3 Mixture
 SureSelect RNase Block Mixture
 Amplification Master Mix Mixture

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

Amplification Master Mix

H302	ACUTE TOXICITY (oral)	Category 4
H315	SKIN CORROSION/IRRITATION	Category 2
H371	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	Category 2
H412	LONG-TERM (CHRONIC) AQUATIC HAZARD	Category 3

SureSelect Hyb 3 The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

SureSelect RNase Block The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Amplification Master Mix The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

SECTION 2: Hazards identification

Ingredients of unknown toxicity	: SureSelect Hyb 3 SureSelect RNase Block Amplification Master Mix	Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10% Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10% Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 1 - 10% Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60% Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60%
Ingredients of unknown ecotoxicity	: SureSelect Hyb 3	Contains 3% 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 : Amplification Master Mix



Signal word : SureSelect Hyb 3 No signal word.
SureSelect RNase Block No signal word.
Amplification Master Mix Warning

Hazard statements : SureSelect Hyb 3 No known significant effects or critical hazards.
SureSelect RNase Block No known significant effects or critical hazards.
Amplification Master Mix H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H371 - May cause damage to organs.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention : SureSelect Hyb 3 Not applicable.
SureSelect RNase Block Not applicable.
Amplification Master Mix P280 - Wear protective gloves.
P273 - Avoid release to the environment.
P260 - Do not breathe vapour.
P270 - Do not eat, drink or smoke when using this product.

Response : SureSelect Hyb 3 Not applicable.
SureSelect RNase Block Not applicable.
Amplification Master Mix P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor.

Storage : SureSelect Hyb 3 Not applicable.
SureSelect RNase Block Not applicable.
Amplification Master Mix Not applicable.

Disposal : SureSelect Hyb 3 Not applicable.
SureSelect RNase Block Not applicable.
Amplification Master Mix P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients : Amplification Master Mix tetramethylammonium chloride

Supplemental label elements : SureSelect Hyb 3 Not applicable.
SureSelect RNase Block Safety data sheet available on request.
Amplification Master Mix Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : SureSelect Hyb 3 Not applicable.
SureSelect RNase Block Not applicable.
Amplification Master Mix Not applicable.

SECTION 2: Hazards identification

Special packaging requirements

Containers to be fitted with child-resistant fastenings : SureSelect Hyb 3 Not applicable.
 SureSelect RNase Block Not applicable.
 Amplification Master Mix Not applicable.

Tactile warning of danger : SureSelect Hyb 3 Not applicable.
 SureSelect RNase Block Not applicable.
 Amplification Master Mix Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : SureSelect Hyb 3 This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
 SureSelect RNase Block This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
 Amplification Master Mix 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 3 None known.
 SureSelect RNase Block None known.
 Amplification Master Mix None known.

SECTION 3: Composition/information on ingredients

3.1 Substances : SureSelect Hyb 3 Mixture
 SureSelect RNase Block Mixture
 Amplification Master Mix Mixture

Product/ingredient name	Identifiers	%	Classification	Type
SureSelect RNase Block Glycerol	UK (GB) REACH #: Annex V REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified.	[1]
Amplification Master Mix Glycerol	UK (GB) REACH #: Annex V REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥25 - ≤50	Not classified.	[2]
Trometamol	EC: 201-064-4 CAS: 77-86-1	<10	Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1]
tetramethylammonium chloride	EC: 200-880-8 CAS: 75-57-0	<10	Acute Tox. 2, H300 Acute Tox. 3, H311 Skin Irrit. 2, H315 STOT SE 1, H370 (central nervous system (CNS)) (oral) Aquatic Chronic 2, H411 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

SureSelect RNase Block [1] Substance with a workplace exposure limit
 Amplification Master Mix [1] Substance classified with a health or environmental hazard
 [2] Substance with a workplace exposure limit

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 3	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 RNase Block	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.
	Amplification Master Mix	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. If necessary, call a poison center or physician.
Inhalation	: SureSelect Hyb 3	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.
	SureSelect RNase Block	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Amplification Master Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention following exposure or if feeling unwell. If necessary, call a poison center or physician. 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.
Skin contact	: SureSelect Hyb 3	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureSelect RNase Block	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Amplification Master Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: SureSelect Hyb 3	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 RNase Block	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.
	Amplification Master Mix	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.

SECTION 4: First aid measures

If necessary, call a poison center or physician. 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.

Protection of first-aiders	: SureSelect Hyb 3 SureSelect RNase Block Amplification Master Mix	No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
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4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	: SureSelect Hyb 3 SureSelect RNase Block Amplification Master Mix	No specific data. No specific data. Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: SureSelect Hyb 3 SureSelect RNase Block Amplification Master Mix	No specific data. No specific data. No specific data.
Skin contact	: SureSelect Hyb 3 SureSelect RNase Block Amplification Master Mix	No specific data. No specific data. Adverse symptoms may include the following: irritation redness
Ingestion	: SureSelect Hyb 3 SureSelect RNase Block Amplification Master Mix	No specific data. No specific data. No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: SureSelect Hyb 3 SureSelect RNase Block Amplification Master Mix	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. 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 Hyb 3 SureSelect RNase Block Amplification Master Mix	No specific treatment. No specific treatment. No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: SureSelect Hyb 3 SureSelect RNase Block Amplification Master Mix	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: SureSelect Hyb 3 SureSelect RNase Block Amplification Master Mix	None known. None known. None known.

5.2 Special hazards arising from the substance or mixture

SECTION 5: Firefighting measures

Hazards from the substance or mixture	: SureSelect Hyb 3	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureSelect RNase Block	In a fire or if heated, a pressure increase will occur and the container may burst.
	Amplification Master Mix	In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous combustion products	: SureSelect Hyb 3	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides halogenated compounds carbonyl halides
	SureSelect RNase Block	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	Amplification Master Mix	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 3	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 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.
	Amplification Master 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 Hyb 3	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	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.
	Amplification Master 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 Hyb 3	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 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 spilt material. Put on appropriate personal protective equipment.
	Amplification Master 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 spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear

SECTION 6: Accidental release measures

For emergency responders

: SureSelect Hyb 3

appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

SureSelect RNase Block

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".

Amplification Master Mix

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".

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 3

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 RNase Block

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).

Amplification Master Mix

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). Water polluting material. May be harmful to the environment if released in large quantities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up

: SureSelect Hyb 3

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 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.

Amplification Master 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.

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 3

Put on appropriate personal protective equipment (see Section 8).

SureSelect RNase Block

Put on appropriate personal protective equipment (see Section 8).

Amplification Master Mix

Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a

SECTION 7: Handling and storage

Advice on general occupational hygiene

: SureSelect Hyb 3

respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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.

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 RNase Block

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.

Amplification Master Mix

Potentially biohazardous material. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Storage

: SureSelect Hyb 3

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 RNase Block

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.

Amplification Master Mix

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. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

SECTION 7: Handling and storage

Recommendations	: SureSelect Hyb 3 SureSelect RNase Block Amplification Master Mix	Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
Industrial sector specific solutions	: SureSelect Hyb 3 SureSelect RNase Block Amplification Master Mix	Not available. Not available. Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
SureSelect RNase Block Glycerol	EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 10 mg/m ³ 8 hours. Form: Mist
Amplification Master Mix Glycerol	EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 10 mg/m ³ 8 hours. Form: Mist

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

Product/ingredient name	Type	Exposure	Value	Population	Effects
Amplification Master Mix Trometamol tetramethylammonium chloride	DNEL	Long term Oral	8.3 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	29 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	83.3 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	117.5 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	166.7 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	0.25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.4 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.76 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	2.9 mg/m ³	Workers	Systemic

PNECs

No PNECs available

8.2 Exposure controls

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

Individual protection measures

SECTION 8: Exposure controls/personal protection

- Hygiene measures** : Handle as biohazard material (Biosafety level 1). Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- 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 3	Liquid.
	SureSelect RNase Block	Liquid.
	Amplification Master Mix	Liquid.
Colour	: SureSelect Hyb 3	Not available.
	SureSelect RNase Block	Not available.
	Amplification Master Mix	Not available.
Odour	: SureSelect Hyb 3	Not available.
	SureSelect RNase Block	Not available.
	Amplification Master Mix	Not available.
Odour threshold	: SureSelect Hyb 3	Not available.
	SureSelect RNase Block	Not available.
	Amplification Master Mix	Not available.
Melting point/freezing point	: SureSelect Hyb 3	0°C
	SureSelect RNase Block	Not available.
	Amplification Master Mix	Not available.
Initial boiling point and boiling range	: SureSelect Hyb 3	100°C
	SureSelect RNase Block	Not available.
	Amplification Master Mix	Not available.
Flammability	: SureSelect Hyb 3	Not applicable.
	SureSelect RNase Block	Not applicable.
	Amplification Master Mix	Not applicable.

SECTION 9: Physical and chemical properties

Upper/lower flammability or explosive limits : SureSelect Hyb 3 Not available.
 SureSelect RNase Block Not available.
 Amplification Master Mix Not available.

Flash point :

Ingredient name	Closed cup		Open cup	
	°C	Method	°C	Method
SureSelect RNase Block				
glycerol	-	-	177	-
Amplification Master Mix				
glycerol	-	-	177	-

Auto-ignition temperature :

Ingredient name	°C	Method
SureSelect RNase Block		
glycerol	370	-
Amplification Master Mix		
glycerol	370	-

Decomposition temperature : SureSelect Hyb 3 Not available.
 SureSelect RNase Block Not available.
 Amplification Master Mix Not available.

pH : SureSelect Hyb 3 7
 SureSelect RNase Block 7.6
 Amplification Master Mix 8.5

Viscosity : SureSelect Hyb 3 Not available.
 SureSelect RNase Block Not available.
 Amplification Master Mix Not available.

Solubility(ies) :

Media	Result
SureSelect Hyb 3	
water	Soluble
SureSelect RNase Block	
water	Soluble
Amplification Master Mix	
water	Soluble

Partition coefficient: n-octanol/water : SureSelect Hyb 3 Not applicable.
 SureSelect RNase Block Not applicable.
 Amplification Master Mix Not applicable.

Vapour pressure :

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
SureSelect Hyb 3						
water	17.5	2.3	-	92.258	12.3	-
SureSelect RNase Block						
water	17.5	2.3	-	92.258	12.3	-
glycerol	0.000075	0.00001	-	0.0025	0.00033	-
Amplification						

SECTION 9: Physical and chemical properties

Master Mix							
water	17.5	2.3	-	-	92.258	12.3	-
trometamol	<0.00075006	<0.0001	-	-	-	-	-

Evaporation rate : SureSelect Hyb 3 Not available.
 SureSelect RNase Block Not available.
 Amplification Master Mix Not available.

Relative density : SureSelect Hyb 3 Not available.
 SureSelect RNase Block Not available.
 Amplification Master Mix Not available.

Vapour density : SureSelect Hyb 3 Not available.
 SureSelect RNase Block Not available.
 Amplification Master Mix Not available.

Explosive properties : SureSelect Hyb 3 Not available.
 SureSelect RNase Block Not available.
 Amplification Master Mix Not available.

Oxidising properties : SureSelect Hyb 3 Not available.
 SureSelect RNase Block Not available.
 Amplification Master Mix Not available.

Particle characteristics

Median particle size : SureSelect Hyb 3 Not applicable.
 SureSelect RNase Block Not applicable.
 Amplification Master Mix Not applicable.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity : SureSelect Hyb 3 No specific test data related to reactivity available for this product or its ingredients.
 SureSelect RNase Block No specific test data related to reactivity available for this product or its ingredients.
 Amplification Master Mix No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : SureSelect Hyb 3 The product is stable.
 SureSelect RNase Block The product is stable.
 Amplification Master Mix The product is stable.

10.3 Possibility of hazardous reactions : SureSelect Hyb 3 Under normal conditions of storage and use, hazardous reactions will not occur.
 SureSelect RNase Block Under normal conditions of storage and use, hazardous reactions will not occur.
 Amplification Master Mix Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : SureSelect Hyb 3 No specific data.
 SureSelect RNase Block No specific data.
 Amplification Master Mix No specific data.

10.5 Incompatible materials : SureSelect Hyb 3 May react or be incompatible with oxidising materials.
 SureSelect RNase Block May react or be incompatible with oxidising materials.
 Amplification Master Mix May react or be incompatible with oxidising materials.

SECTION 10: Stability and reactivity

10.6 Hazardous decomposition products	: SureSelect Hyb 3	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SureSelect RNase Block	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Amplification Master Mix	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	-
Amplification Master Mix Glycerol Trometamol tetramethylammonium chloride	LD50 Oral	Rat	12600 mg/kg	-
	LD50 Dermal	Rat	>5000 mg/kg	-
	LD50 Dermal	Rabbit - Male, Female	200 to 500 mg/kg	-
	LD50 Oral	Rat	50 mg/kg	-

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 RNase Block Glycerol	12600	N/A	N/A	N/A	N/A
Amplification Master Mix Amplification Master Mix Glycerol tetramethylammonium chloride	1279.5	7677.0	N/A	N/A	N/A
	12600	N/A	N/A	N/A	N/A
	50	300	N/A	N/A	N/A

Irritation/Corrosion

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	-
Amplification Master Mix Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Trometamol	Skin - Moderate irritant	Rabbit	-	25 %	-
	Skin - Severe irritant	Rabbit	-	500 mg	-

Sensitiser

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

SECTION 11: Toxicological information

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Amplification Master Mix tetramethylammonium chloride	Category 1	oral	central nervous system (CNS)

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure : SureSelect Hyb 3 Not available.
 SureSelect RNase Block Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
 Amplification Master Mix Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Inhalation : SureSelect Hyb 3 No known significant effects or critical hazards.
 SureSelect RNase Block No known significant effects or critical hazards.
 Amplification Master Mix May cause damage to organs following a single exposure if inhaled.

Ingestion : SureSelect Hyb 3 No known significant effects or critical hazards.
 SureSelect RNase Block No known significant effects or critical hazards.
 Amplification Master Mix Harmful if swallowed. May cause damage to organs following a single exposure if swallowed.

Skin contact : SureSelect Hyb 3 No known significant effects or critical hazards.
 SureSelect RNase Block No known significant effects or critical hazards.
 Amplification Master Mix May cause damage to organs following a single exposure in contact with skin. Causes skin irritation.

Eye contact : SureSelect Hyb 3 No known significant effects or critical hazards.
 SureSelect RNase Block No known significant effects or critical hazards.
 Amplification Master Mix No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : SureSelect Hyb 3 No specific data.
 SureSelect RNase Block No specific data.
 Amplification Master Mix No specific data.

Ingestion : SureSelect Hyb 3 No specific data.
 SureSelect RNase Block No specific data.
 Amplification Master Mix No specific data.

Skin contact : SureSelect Hyb 3 No specific data.
 SureSelect RNase Block No specific data.
 Amplification Master Mix Adverse symptoms may include the following:
 irritation
 redness

Eye contact : SureSelect Hyb 3 No specific data.
 SureSelect RNase Block No specific data.
 Amplification Master Mix Adverse symptoms may include the following:
 pain or irritation
 watering
 redness

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

SECTION 11: Toxicological information

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General : SureSelect Hyb 3 No known significant effects or critical hazards.
 SureSelect RNase Block No known significant effects or critical hazards.
 Amplification Master Mix No known significant effects or critical hazards.

Carcinogenicity : SureSelect Hyb 3 No known significant effects or critical hazards.
 SureSelect RNase Block No known significant effects or critical hazards.
 Amplification Master Mix No known significant effects or critical hazards.

Mutagenicity : SureSelect Hyb 3 No known significant effects or critical hazards.
 SureSelect RNase Block No known significant effects or critical hazards.
 Amplification Master Mix No known significant effects or critical hazards.

Reproductive toxicity : SureSelect Hyb 3 No known significant effects or critical hazards.
 SureSelect RNase Block No known significant effects or critical hazards.
 Amplification Master Mix No known significant effects or critical hazards.

Other information : SureSelect RNase Block Adverse symptoms may include the following: May cause skin sensitisation.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
SureSelect RNase Block Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Trout - <i>Oncorhynchus mykiss</i>	96 hours
Amplification Master Mix Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Trout - <i>Oncorhynchus mykiss</i>	96 hours
Trometamol	Acute EC50 >980 mg/l Fresh water	Daphnia	48 hours
tetramethylammonium chloride	Acute NOEC 520 mg/l Fresh water Acute LC50 462 mg/l Fresh water	Daphnia Fish - Fathead minnow - <i>Pimephales promelas</i>	48 hours 96 hours

Conclusion/Summary : Not available.

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	-	-
Amplification Master Mix Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
Trometamol	OECD 301F Ready Biodegradability - Manometric Respirometry Test	97.1 % - Readily - 28 days	30 mg/l	-

Conclusion/Summary : Not available.

SECTION 12: Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Amplification Master Mix Trometamol tetramethylammonium chloride	- -	- -	Readily Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
SureSelect RNase Block Glycerol	-1.76	-	Low
Amplification Master Mix Glycerol Trometamol tetramethylammonium chloride	-1.76 -2.31 <-1.6	- - -	Low Low 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 : The classification of the product may meet the criteria for a hazardous waste.

Packaging

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

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

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	-	-	-
14.5 Environmental hazards	No.	No.	No.

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

Product / Ingredient name	Identifiers	Status
Amplification Master Mix Amplification Master Mix	-	3

Label : SureSelect Hyb 3 Not applicable.
 SureSelect RNase Block Not applicable.
 Amplification Master Mix Not applicable.

Seveso Directive

This product is not controlled under the Seveso Directive.

SureSelect Max Target Enrichment Kit Overnight Hyb Module, Box 2, 16_96 Hybs

SECTION 15: Regulatory information

EU regulations

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

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

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
Amplification Master Mix Acute Tox. 4, H302 Skin Irrit. 2, H315 STOT SE 2, H371 Aquatic Chronic 3, H412	Calculation method Calculation method Calculation method Calculation method

Full text of abbreviated H statements

SECTION 16: Other information

Amplification

Master Mix

H300	Fatal if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H370	Causes damage to organs.
H371	May cause damage to organs.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications

Amplification

Master Mix

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
STOT SE 1	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1
STOT SE 2	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 2

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Date of previous issue : No previous validation

Version : 1

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