

SAFETY DATA SHEETS

Visium Spatial Gene Expression for FFPE Reagent Kits

Visium Human Transcriptome Probe Kit, Large PN-1000364
Visium Human Transcriptome Probe Kit, Small PN-1000363

REAGENTS	PN
FFPE Hyb Buffer	2000423
FFPE Post-Hyb Wash Buffer	2000424
Human WT Probes – RHS	2000453/ 2000449
Human WT Probes – LHS	2000454/ 2000450
Probe Ligation Enzyme	2000426/ 2000425
2X Probe Ligation Buffer	2000446/ 2000445
Post Ligation Wash Buffer	2000420/ 2000419

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/05/2021

Reviewed on 05/05/2021

*** 1 Identification**

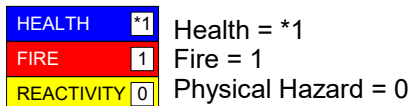
- **Product Identifier**
- **Trade Name: FFPE Post-Hyb Wash buffer**
- **Product Number:** 2000424
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description:** No further relevant information available.
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
10x Genomics
6230 Stoneridge Mall Road
Pleasanton, CA 94588 USA
1 925 401 7300
<https://www.10xgenomics.com/>
- **Emergency telephone number:** 1 925 401 7300

2 Hazard(s) Identification

- **Classification of the substance or mixture:**
Eye Irrit. 2B H320 Causes eye irritation.
- **Label elements:**
- **Hazard pictograms:** Non-Regulated Material
- **Signal word:** Warning
- **Hazard-determining components of labeling:**
Trade Secret
- **Hazard statements:**
H320 Causes eye irritation.
- **Precautionary statements:**
P264 Wash thoroughly after handling.
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/attention.
- **Unknown acute toxicity:**
This value refers to knowledge of known, established toxicological or ecotoxicological values.
0 % of the mixture consists of component(s) of unknown toxicity.
- **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
- **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



- **Hazard(s) not otherwise classified (HNOC):** None known

3 Composition/Information on Ingredients

- **Chemical characterization: Substance**
- **Description:** Mixture of substances listed below with non-hazardous additions.

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Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/05/2021

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Trade Name: FFPE Post-Hyb Wash buffer

· Dangerous Components:		
Trade Secret	 Eye Dam. 1, H318	2-12%

· Additional information:

Trade secret made in accordance with paragraph (i) of §1910.1200 of 29 CFR 1910.1200, the OSHA Hazard Communication Standard and U.S. Code of Federal Regulations.

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4 First-Aid Measures

· Description of first aid measures

- **General information:** If symptoms persist, call a physician.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** If skin irritation occurs, consult a doctor.
- **After eye contact:**
Rinse opened eye for at least 15 minutes under running water. If symptoms persist, consult a doctor.
If easy to do so, remove contact lenses if worn.
- **After swallowing:** If swallowed and symptoms occur, consult a doctor.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**
No further relevant information available.

5 Fire-Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** No further relevant information.
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Advice for firefighters**
- **Special protective equipment for firefighters:**
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**
Dispose of the collected material according to regulations.
- **Reference to other sections:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· PAC-1:		
Trade Secret		30 mg/m ³
· PAC-2:		
Trade Secret		330 mg/m ³
· PAC-3:		
Trade Secret		2,000 mg/m ³

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Trade Name: FFPE Post-Hyb Wash buffer

7 Handling and Storage

- **Handling**
- **Precautions for safe handling:** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**
- **Components with occupational exposure limits:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing and wash before reuse.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
- **Breathing equipment:** Not required.
- **Protection of hands:** Not required.
- **Material of gloves:** Not applicable.
- **Penetration time of glove material:** Not applicable.
- **Eye protection:**



Tightly sealed goggles

- **Limitation and supervision of exposure into the environment:** None

9 Physical and Chemical Properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
- **Form:** Solid
- **Color:** White
- **Odor:** Slight
- **Odor threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**
- **Melting point/Melting range:** Not determined.

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Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/05/2021

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Trade Name: FFPE Post-Hyb Wash buffer

- **Flash point:** ≥161 °C (≥321.8 °F)
- **Flammability (solid, gaseous):** Not determined.
- **Ignition temperature:** ≥465 °C (≥869 °F)
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
 - **Lower:** Not determined.
 - **Upper:** Not determined.
- **Vapor pressure:** Not applicable.
- **Density @ 20 °C (68 °F):** 1.6212 g/cm³ (13.5289 lbs/gal)
- **Relative density:** Not determined.
- **Vapor density:** Not applicable.
- **Evaporation rate:** Not applicable.
- **Solubility in / Miscibility with:**
 - **Water:** Fully miscible.
Soluble.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - **Dynamic:** Not applicable.
 - **Kinematic:** Not applicable.
- **Solvent content:**
 - **VOC content:** 0.00 %
 - **Solids content:** 100.0 %
- **Other information:** No further relevant information available.

10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Product is stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**

LD/LC50 values that are relevant for classification:		
Trade Secret		
Oral	LD50	10,000 mg/kg (Rat)

- **Primary irritant effect:**
- **On the skin:** No irritating effect.

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Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/05/2021

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Trade Name: FFPE Post-Hyb Wash buffer

- **On the eye:** Irritating effect.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

- **Carcinogenic categories:**

- **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

- **NTP (National Toxicology Program):**

None of the ingredients are listed.

- **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

12 Ecological Information

- **Toxicity:**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

13 Disposal Considerations

- **Waste treatment methods**
- **Recommendation:**
Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport Information

- **UN-Number:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es):**
- **DOT, ADR/ADN, ADN, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.

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Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/05/2021

Reviewed on 05/05/2021

Trade Name: FFPE Post-Hyb Wash buffer

- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

15 Regulatory Information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
No further relevant information available.

· **SARA (Superfund Amendments and Reauthorization):**

· Section 355 (extremely hazardous substances):
None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):
None of the ingredients are listed.

· TSCA (Toxic Substances Control Act):
Trade Secret ACTIVE

· Hazardous Air Pollutants
None of the ingredients are listed.

· **California Proposition 65:**

· Chemicals known to cause cancer:
None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **New Jersey Right-to-Know List:**

None of the ingredients are listed.

· **New Jersey Special Hazardous Substance List:**

None of the ingredients are listed.

· **Pennsylvania Right-to-Know List:**

Trade Secret

· **Pennsylvania Special Hazardous Substance List:**

None of the ingredients are listed.

· **Carcinogenic categories:**

· **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

· **TLV (Threshold Limit Value established by ACGIH):**

None of the ingredients are listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients are listed.

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms:** Non-Regulated Material

Safety Data Sheet (SDS)

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Issue date 05/05/2021

Reviewed on 05/05/2021

Trade Name: FFPE Post-Hyb Wash buffer

- **Signal word:** Warning
- **Hazard-determining components of labeling:**
Trade Secret
- **Hazard statements:**
H320 Causes eye irritation.
- **Precautionary statements:**
P264 Wash thoroughly after handling.
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/attention.

· **National regulations:**

None of the ingredients are listed.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

- **Contact:**
- **Date of last revision/ revision number:** 05/05/2021 / 2
- **Abbreviations and acronyms:**
ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety and Health
OSHA: Occupational Safety & Health Administration
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B
- *** Data compared to the previous version altered.**
SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/13/2021

Reviewed on 05/13/2021

*** 1 Identification**

- **Product Identifier**
- **Trade Name: FFPE Hyb Buffer**
- **Product Number: 2000423**
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description:** No further relevant information available.
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
10x Genomics
6230 Stoneridge Mall Road
Pleasanton, CA 94588 USA
1 925 401 7300
<https://www.10xgenomics.com/>
- **Emergency telephone number:** 1 925 401 7300

2 Hazard(s) Identification

- **Classification of the substance or mixture:**



Corrosion

Eye Dam. 1 H318 Causes serious eye damage.

- **Label elements:**
- **Hazard pictograms:**



- **Signal word:** Danger
- **Hazard-determining components of labeling:**
Trade Secret
- **Hazard statements:**
H318 Causes serious eye damage.
- **Precautionary statements:**
P280 Wear eye protection / face protection.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a poison center/doctor.
- **Unknown acute toxicity:**
This value refers to knowledge of known, established toxicological or ecotoxicological values.
0 % of the mixture consists of component(s) of unknown toxicity.
- **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
- **NFPA ratings (scale 0 - 4)**



Health = 3
Fire = 0
Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = *3
Fire = 0
Physical Hazard = 0

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/13/2021

Reviewed on 05/13/2021

Trade Name: FFPE Hyb Buffer

- **Hazard(s) not otherwise classified (HNOC):** None known

3 Composition/Information on Ingredients

- **Chemical characterization: Substance**
- **Description:** Mixture of substances listed below with non-hazardous additions.

· **Dangerous Components:**

Trade Secret

 Eye Dam. 1, H318

15-35%

· **Additional information:**

Trade secret made in accordance with paragraph (i) of §1910.1200 of 29 CFR 1910.1200, the OSHA Hazard Communication Standard and U.S. Code of Federal Regulations.

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4 First-Aid Measures

- **Description of first aid measures**
- **General information:** If symptoms persist, call a physician.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** If skin irritation occurs, consult a doctor.
- **After eye contact:**
Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Get immediate medical attention.
Have eyes examined and tested by medical personnel.
Rinse opened eye for several minutes under running water. Then consult a doctor.
If easy to do so, remove contact lenses if worn.
- **After swallowing:** If swallowed and symptoms occur, consult a doctor.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**
No further relevant information available.

5 Fire-Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** No further relevant information.
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Advice for firefighters**
- **Special protective equipment for firefighters:**
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**
Dispose of the collected material according to regulations.
- **Reference to other sections:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/13/2021

Reviewed on 05/13/2021

Trade Name: FFPE Hyb Buffer

Protective Action Criteria for Chemicals

· PAC-1:	
Trade Secret	30 mg/m ³
· PAC-2:	
Trade Secret	330 mg/m ³
· PAC-3:	
Trade Secret	2,000 mg/m ³

7 Handling and Storage

- **Handling**
- **Precautions for safe handling:** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**
- **Components with occupational exposure limits:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment**
- **General protective and hygienic measures:**
Immediately remove all soiled and contaminated clothing and wash before reuse.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
- **Breathing equipment:** Not required.
- **Protection of hands:** Not required.
- **Material of gloves:** Not applicable.
- **Penetration time of glove material:** Not applicable.
- **Eye protection:**



Tightly sealed goggles

- **Limitation and supervision of exposure into the environment:** None

9 Physical and Chemical Properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
Form: Solid

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/13/2021

Reviewed on 05/13/2021

Trade Name: FFPE Hyb Buffer

· Color:	White
· Odor:	Slight
· Odor threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	Not determined.
· Flash point:	None
· Flammability (solid, gaseous):	Not determined.
· Ignition temperature:	Not applicable
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not self-igniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure:	Not applicable.
· Density @ 20 °C (68 °F):	1.5402 g/cm ³ (12.853 lbs/gal)
· Relative density:	Not determined.
· Vapor density:	Not applicable.
· Evaporation rate:	Not applicable.
· Solubility in / Miscibility with:	
Water:	Fully miscible. Soluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Solvent content:	
VOC content:	0.00 %
Solids content:	100.0 %
· Other information:	No further relevant information available.

10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Product is stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

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Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/13/2021

Reviewed on 05/13/2021

Trade Name: FFPE Hyb Buffer

11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

Trade Secret

Oral	LD50	10,000 mg/kg (Rat)
------	------	--------------------

- **Primary irritant effect:**
- **On the skin:** Strong caustic effect on skin and mucous membranes.
- **On the eye:**
Strong irritant with the danger of severe eye injury.
Corrosive effect.
Causes serious eye irritation.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

- **Carcinogenic categories:**

- **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

- **NTP (National Toxicology Program):**

None of the ingredients are listed.

- **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

12 Ecological Information

- **Toxicity:**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

13 Disposal Considerations

- **Waste treatment methods**
- **Recommendation:**
Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.

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Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/13/2021

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Trade Name: FFPE Hyb Buffer

- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport Information

- **UN-Number:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es):**
- **DOT, ADR/ADN, ADN, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
No further relevant information available.
- **SARA (Superfund Amendments and Reauthorization):**

Section 355 (extremely hazardous substances):	
None of the ingredients are listed.	

Section 313 (Specific toxic chemical listings):	
None of the ingredients are listed.	

TSCA (Toxic Substances Control Act):		
	Trade Secret	ACTIVE
7647-14-5	Sodium Chloride	ACTIVE

Hazardous Air Pollutants	
None of the ingredients are listed.	

· **California Proposition 65:**

Chemicals known to cause cancer:	
None of the ingredients are listed.	

Chemicals known to cause reproductive toxicity for females:	
None of the ingredients are listed.	

Chemicals known to cause reproductive toxicity for males:	
None of the ingredients are listed.	

Chemicals known to cause developmental toxicity:	
None of the ingredients are listed.	

New Jersey Right-to-Know List:	
None of the ingredients are listed.	

New Jersey Special Hazardous Substance List:	
None of the ingredients are listed.	

(Contd. on page 7)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/13/2021

Reviewed on 05/13/2021

Trade Name: FFPE Hyb Buffer

· Pennsylvania Right-to-Know List:
Trade Secret
· Pennsylvania Special Hazardous Substance List:
None of the ingredients are listed.
· Carcinogenic categories:
· EPA (Environmental Protection Agency):
None of the ingredients are listed.
· TLV (Threshold Limit Value established by ACGIH):
None of the ingredients are listed.
· NIOSH-Ca (National Institute for Occupational Safety and Health):
None of the ingredients are listed.

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms:**



· **Signal word:** Danger

· **Hazard-determining components of labeling:**

Trade Secret

· **Hazard statements:**

H318 Causes serious eye damage.

· **Precautionary statements:**

P280 Wear eye protection / face protection.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a poison center/doctor.

· **National regulations:**

None of the ingredients are listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Contact:**

· **Date of last revision/ revision number:** 05/13/2021 / 2

· **Abbreviations and acronyms:**

- ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/13/2021

Reviewed on 05/13/2021

Trade Name: FFPE Hyb Buffer

VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety and Health
OSHA: Occupational Safety & Health Administration
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Eye Dam. 1: Serious eye damage/eye irritation – Category 1

· *** Data compared to the previous version altered.**

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/20/2021

Reviewed on 04/20/2021

* 1 Identification

· **Product Identifier**

· **Trade Name: cDNA Primers**

Feature cDNA Primers 1
Feature cDNA Primers 2
Feature cDNA Primers 3
Second Strand Primer
Dual Index Plate TS, Set A
Human WT Probes - RHS
Human WT Probes - LHS
Mouse WT Probes - RHS
Mouse WT Probes - LHS
Human WT Probes - RHS
Human WT Probes - LHS
Mouse WT Probes - RHS
Mouse WT Probes - LHS
TS Primer Mix A

· **Product Number:**

2000089
 2000096
 2000097
 2000289
 2000217
 3000511
 2000453
 2000454
 2000457
 2000458
 2000449
 2000450
 2000455
 2000456
 2000447

· **Relevant identified uses of the substance or mixture and uses advised against:**

· **Product Description:** No further relevant information available.

· **Details of the Supplier of the Safety Data Sheet:**

· **Manufacturer/Supplier:**

10x Genomics
 6230 Stoneridge Mall Road
 Pleasanton, CA 94588 USA
 1 925 401 7300
<https://www.10xgenomics.com/>

· **Emergency telephone number:** 1 925 401 7300

2 Hazard(s) Identification

· **Classification of the substance or mixture:**

The product does not need classification according to OSHA HazCom Standard 29 CFR paragraph (d) of §1910.1200(g) and GHS Rev 03.

· **Label elements:**

- **Hazard pictograms:** Non-Regulated Material
- **Signal word:** Non-Regulated Material
- **Hazard statements:** Non-Regulated Material

(Contd. on page 2)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/20/2021

Reviewed on 04/20/2021

Trade Name: cDNA Primers

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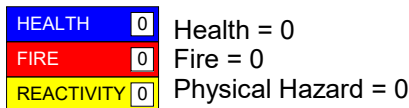
· **Unknown acute toxicity:**

This value refers to knowledge of known, established toxicological or ecotoxicological values.
0 % of the mixture consists of component(s) of unknown toxicity.

- **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
- **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



- **Hazard(s) not otherwise classified (HNOC):** None known

3 Composition/Information on Ingredients

- **Chemical characterization: Substance**
- **Description:** Non-Regulated Material
- **Dangerous Components:** Non-Regulated Material

4 First-Aid Measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:**
In case of unconsciousness place patient stably in the side position for transportation.
Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Wash with soap and water.
If skin irritation occurs, consult a doctor.
- **After eye contact:**
If eye irritation occurs, consult a doctor.
Rinse opened eye for several minutes under running water.
- **After swallowing:**
Do not induce vomiting without medical advice.
If swallowed and symptoms occur, consult a doctor.

(Contd. on page 3)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/20/2021

Reviewed on 04/20/2021

Trade Name: cDNA Primers

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- Human WT Probes - LHS
- Mouse WT Probes - RHS
- Mouse WT Probes - LHS
- TS Primer Mix A

- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**
No further relevant information available.

5 Fire-Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** No further relevant information.
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Advice for firefighters**
- **Special protective equipment for firefighters:**
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:**
Avoid contact with skin, eyes and clothing.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the collected material according to regulations.
- **Reference to other sections:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

None of the ingredients are listed.

· **PAC-2:**

None of the ingredients are listed.

· **PAC-3:**

None of the ingredients are listed.

(Contd. on page 4)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/20/2021

Reviewed on 04/20/2021

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- TS Primer Mix A

7 Handling and Storage

- **Handling**
- **Precautions for safe handling:** Avoid breathing fume/gas/mist/vapors/spray.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**
- **Components with occupational exposure limits:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:** Not required.
- **Material of gloves:** Not applicable.
- **Penetration time of glove material:** Not applicable.
- **Eye protection:**



Safety glasses

(Contd. on page 5)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/20/2021

Reviewed on 04/20/2021

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- Mouse WT Probes - LHS
- TS Primer Mix A

9 Physical and Chemical Properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
 - Form: Liquid
 - Color: Clear, colorless
 - Odor: Odorless
 - Odor threshold: Not determined.
- **pH-value:** Not applicable.
- **Change in condition**
 - Melting point/Melting range: Not determined.
- **Flash point:** None
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:** Not applicable
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
 - Lower: Not determined.
 - Upper: Not determined.
- **Vapor pressure:** Not determined.
- **Density @ 20 °C (68 °F):** \ g/cm³
- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.
- **Solubility in / Miscibility with:**
 - Water: Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic: Not determined.

(Contd. on page 6)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/20/2021

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- Kinematic:** Not determined.
- Solvent content:**
- VOC content:** 0.00 %
- Other information:** No further relevant information available.

10 Stability and Reactivity

- Reactivity:** No further relevant information available.
- Chemical stability:** Stable under normal conditions.
- Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- Possibility of hazardous reactions:** No dangerous reactions known.
- Conditions to avoid:** No further relevant information available.
- Incompatible materials:** Strong acids, strong bases
- Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological Information

- Information on toxicological effects:**
- Acute toxicity:**
- LD/LC50 values that are relevant for classification:** No data available.
- Primary irritant effect:**
- On the skin:** No irritating effect.
- On the eye:** No irritating effect.
- Additional toxicological information:**
 The product is not subject to classification according to internally approved calculation methods for preparations.
 When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

Carcinogenic categories:

IARC (International Agency for Research on Cancer):	None of the ingredients are listed.
NTP (National Toxicology Program):	None of the ingredients are listed.
OSHA-Ca (Occupational Safety & Health Administration):	None of the ingredients are listed.

(Contd. on page 7)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/20/2021

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12 Ecological Information

- **Toxicity:**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

13 Disposal Considerations

- **Waste treatment methods**
- **Recommendation:**
Smaller quantities can be disposed of with household waste.
Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport Information

- **UN-Number:**
- **DOT, ADR/ADN, ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name:**
- **DOT, ADR/ADN, ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es):**
- **DOT, ADR/ADN, ADN, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material

(Contd. on page 8)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/20/2021

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- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

15 Regulatory Information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
No further relevant information available.

· **SARA (Superfund Amendments and Reauthorization):**

· Section 355 (extremely hazardous substances):
None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):
None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act):**

· **California Proposition 65:**

· Chemicals known to cause cancer:
None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **New Jersey Right-to-Know List:**

None of the ingredients are listed.

· **New Jersey Special Hazardous Substance List:**

None of the ingredients are listed.

· **Pennsylvania Right-to-Know List:**

None of the ingredients are listed.

· **Pennsylvania Special Hazardous Substance List:**

None of the ingredients are listed.

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/20/2021

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- TS Primer Mix A

· **Carcinogenic categories:**

· **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

· **TLV (Threshold Limit Value established by ACGIH):**

None of the ingredients are listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients are listed.

- **GHS label elements** Non-Regulated Material
- **Hazard pictograms:** Non-Regulated Material
- **Signal word:** Non-Regulated Material
- **Hazard statements:** Non-Regulated Material

· **National regulations:**

None of the ingredients are listed.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Contact:**

- **Date of last revision/ revision number:** 04/20/2021 / 4

· **Abbreviations and acronyms:**

- ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMS: Hazardous Materials Identification System (USA)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- NIOSH: National Institute for Occupational Safety and Health

Safety Data Sheet (SDS)

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Issue date 04/20/2021

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TS Primer Mix A

OSHA: Occupational Safety & Health Administration

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

*** Data compared to the previous version altered.**

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/20/2021

Reviewed on 04/20/2021

*** 1 Identification**

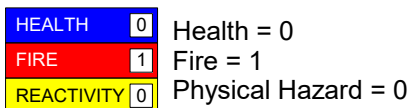
- **Product Identifier**
- **Trade Name:** *Probe ligation enzyme*
Probe ligation enzyme
- **Product Number:**
2000425
2000426
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description:** No further relevant information available.
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
10x Genomics
6230 Stoneridge Mall Road
Pleasanton, CA 94588 USA
1 925 401 7300
<https://www.10xgenomics.com/>
- **Emergency telephone number:** 1 925 401 7300

2 Hazard(s) Identification

- **Classification of the substance or mixture:**
The product does not need classification according to OSHA HazCom Standard 29 CFR paragraph (d) of §1910.1200(g) and GHS Rev 03.
- **Label elements:**
- **Hazard pictograms:** Non-Regulated Material
- **Signal word:** Non-Regulated Material
- **Hazard statements:** Non-Regulated Material
- **Unknown acute toxicity:**
This value refers to knowledge of known, established toxicological or ecotoxicological values.
0 % of the mixture consists of component(s) of unknown toxicity.
- **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Hazard(s) not otherwise classified (HNOC):** None known

*** 3 Composition/Information on Ingredients**

- **Chemical characterization: Substance**
- **Description:** Mixture of substances listed below with non-hazardous additions.

· **Dangerous Components:**

Trade Secret	25-50%
--------------	--------

(Contd. on page 2)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/20/2021

Reviewed on 04/20/2021

Trade Name: Probe ligation enzyme
Probe ligation enzyme

· **Additional information:**

Trade secret made in accordance with paragraph (i) of §1910.1200 of 29 CFR 1910.1200, the OSHA Hazard Communication Standard and U.S. Code of Federal Regulations.

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4 First-Aid Measures

· **Description of first aid measures**

· **General information:** If symptoms persist, call a physician.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** If skin irritation occurs, consult a doctor.

· **After eye contact:**

Rinse opened eye for several minutes under running water.

If eye irritation occurs, consult a doctor.

· **After swallowing:** If swallowed and symptoms occur, consult a doctor.

· **Information for doctor**

· **Most important symptoms and effects, both acute and delayed:** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

5 Fire-Fighting Measures

· **Extinguishing media**

· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

· **For safety reasons unsuitable extinguishing agents:** No further relevant information.

· **Special hazards arising from the substance or mixture:** No further relevant information available.

· **Advice for firefighters**

· **Special protective equipment for firefighters:**

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

* 6 Accidental Release Measures

· **Personal precautions, protective equipment and emergency procedures:** Not required.

· **Environmental precautions:** Dilute with plenty of water.

· **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).

Dispose of the collected material according to regulations.

· **Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

· **Protective Action Criteria for Chemicals**

· **PAC-1:**

Trade Secret	45 mg/m ³
Trade Secret	12 mg/m ³

· **PAC-2:**

Trade Secret	180 mg/m ³
Trade Secret	130 mg/m ³

(Contd. on page 3)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/20/2021

Reviewed on 04/20/2021

Trade Name: Probe ligation enzyme
Probe ligation enzyme

· PAC-3:	
Trade Secret	1,100 mg/m ³
Trade Secret	790 mg/m ³

7 Handling and Storage

- **Handling**
- **Precautions for safe handling:** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**

· Components with occupational exposure limits:	
Trade Secret	
PEL	Long-term value: 15* 5** mg/m ³ mist; *total dust **respirable fraction
TLV	TLV withdrawn-insufficient data human occup. exp.

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:** Not required.
- **Material of gloves:** Not applicable.
- **Penetration time of glove material:** Not applicable.
- **Eye protection:**



Goggles recommended during refilling.

- **Limitation and supervision of exposure into the environment:** None

*** 9 Physical and Chemical Properties**

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
Form: Liquid
Color: White

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/20/2021

Reviewed on 04/20/2021

Trade Name: Probe ligation enzyme
Probe ligation enzyme

- **Odor:** Slight
- **Odor threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**
- Melting point/Melting range:** Not determined.
- **Flash point:** ≥190 °C (≥374 °F)
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:** ≥400 °C (≥752 °F)
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
- Lower:** Not determined.
- Upper:** Not determined.
- **Vapor pressure @ 20 °C (68 °F):** <0.1 hPa
- **Density @ 20 °C (68 °F):** 1.2605 g/cm³ (10.5189 lbs/gal)
- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.
- **Solubility in / Miscibility with:**
- Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
- Dynamic:** Not determined.
- Kinematic:** Not determined.
- **Solvent content:**
- Organic solvents:** 50.0 %
- VOC content:** 0.00 %
- Solids content:** 0.2 %
- **Other information:** No further relevant information available.

10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Product is stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

(Contd. on page 5)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/20/2021

Reviewed on 04/20/2021

Trade Name: Probe ligation enzyme
Probe ligation enzyme

11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

Trade Secret

Oral	LD50	12,600 mg/kg (Rat)
Dermal	LD50	>10,000 mg/kg (Rabbit)
Inhalative	LC50/96 hours	>50,000 mg/l (Trout)

- **Primary irritant effect:**
- **On the skin:** No irritating effect.
- **On the eye:** No irritating effect.
- **Additional toxicological information:**

· **Carcinogenic categories:**

· **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

· **NTP (National Toxicology Program):**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

12 Ecological Information

- **Toxicity:**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information:**

· **General notes:**

Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.

· **Results of PBT and vPvB assessment:**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

13 Disposal Considerations

- **Waste treatment methods**
- **Recommendation:**
Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/20/2021

Reviewed on 04/20/2021

Trade Name: Probe ligation enzyme
Probe ligation enzyme

14 Transport Information

- **UN-Number:** Non-Regulated Material
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name:** Non-Regulated Material
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es):**
- **DOT, ADR/ADN, ADN, IMDG, IATA** Non-Regulated Material
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

* 15 Regulatory Information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
 No further relevant information available.

· **SARA (Superfund Amendments and Reauthorization):**

Section 355 (extremely hazardous substances):	None of the ingredients are listed.
Section 313 (Specific toxic chemical listings):	None of the ingredients are listed.
TSCA (Toxic Substances Control Act):	All components have the value ACTIVE.
Hazardous Air Pollutants	None of the ingredients are listed.
California Proposition 65:	
Chemicals known to cause cancer:	None of the ingredients are listed.
Chemicals known to cause reproductive toxicity for females:	None of the ingredients are listed.
Chemicals known to cause reproductive toxicity for males:	None of the ingredients are listed.
Chemicals known to cause developmental toxicity:	None of the ingredients are listed.
New Jersey Right-to-Know List:	Trade Secret
New Jersey Special Hazardous Substance List:	None of the ingredients are listed.
Pennsylvania Right-to-Know List:	Trade Secret

(Contd. on page 7)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 04/20/2021

Reviewed on 04/20/2021

Trade Name: Probe ligation enzyme
Probe ligation enzyme

· Pennsylvania Special Hazardous Substance List:
None of the ingredients are listed.
· Carcinogenic categories:
· EPA (Environmental Protection Agency):
None of the ingredients are listed.
· TLV (Threshold Limit Value established by ACGIH):
None of the ingredients are listed.
· NIOSH-Ca (National Institute for Occupational Safety and Health):
None of the ingredients are listed.
· GHS label elements Non-Regulated Material
· Hazard pictograms: Non-Regulated Material
· Signal word: Non-Regulated Material
· Hazard statements: Non-Regulated Material
· National regulations:
None of the ingredients are listed.
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

- **Contact:**
- **Date of last revision/ revision number:** 04/20/2021 / 1
- **Abbreviations and acronyms:**
 ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
 ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 NIOSH: National Institute for Occupational Safety and Health
 OSHA: Occupational Safety & Health Administration
 TLV: Threshold Limit Value
 PEL: Permissible Exposure Limit
 REL: Recommended Exposure Limit
- *** Data compared to the previous version altered.**

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/05/2021

Reviewed on 05/05/2021

*** 1 Identification**

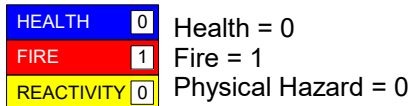
- **Product Identifier**
- **Trade Name: 2X Probe ligation buffer**
- **Product Number:**
2000446
2000445
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description:** No further relevant information available.
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
10x Genomics
6230 Stoneridge Mall Road
Pleasanton, CA 94588 USA
1 925 401 7300
<https://www.10xgenomics.com/>
- **Emergency telephone number:** 1 925 401 7300

2 Hazard(s) Identification

- **Classification of the substance or mixture:**
The product does not need classification according to OSHA HazCom Standard 29 CFR paragraph (d) of §1910.1200(g) and GHS Rev 03.
- **Label elements:**
- **Hazard pictograms:** Non-Regulated Material
- **Signal word:** Non-Regulated Material
- **Hazard statements:** Non-Regulated Material
- **Unknown acute toxicity:**
This value refers to knowledge of known, established toxicological or ecotoxicological values.
1.2 % of the mixture consists of component(s) of unknown toxicity.
- **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Hazard(s) not otherwise classified (HNOC):** None known

3 Composition/Information on Ingredients

- **Chemical characterization: Substance**
- **Description:** Mixture of substances listed below with non-hazardous additions.

Dangerous Components:

Trade Secret		15-35%
Trade Secret	⚠ Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320	≤2.5%

(Contd. on page 2)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/05/2021

Reviewed on 05/05/2021

Trade Name: 2X Probe ligation buffer

· **Additional information:**

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4 First-Aid Measures

· **Description of first aid measures**

· **General information:** If symptoms persist, call a physician.

· **After inhalation:** In case of unconsciousness place patient stably in the side position for transportation.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation occurs, consult a doctor.

· **After eye contact:**

If eye irritation occurs, consult a doctor.

Rinse opened eye for several minutes under running water.

· **After swallowing:** If swallowed and symptoms occur, consult a doctor.

· **Information for doctor**

· **Most important symptoms and effects, both acute and delayed:** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

5 Fire-Fighting Measures

· **Extinguishing media**

· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

· **For safety reasons unsuitable extinguishing agents:** No further relevant information.

· **Special hazards arising from the substance or mixture:** No further relevant information available.

· **Advice for firefighters**

· **Special protective equipment for firefighters:**

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

· **Personal precautions, protective equipment and emergency procedures:** Not required.

· **Environmental precautions:** No special measures required.

· **Methods and material for containment and cleaning up:**

Dispose of the collected material according to regulations.

· **Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

· **Protective Action Criteria for Chemicals**

· **PAC-1:**

Trade Secret	45 mg/m ³
Trade Secret	12 mg/m ³
Trade Secret	11 mg/m ³

· **PAC-2:**

Trade Secret	180 mg/m ³
Trade Secret	130 mg/m ³
Trade Secret	120 mg/m ³

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Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/05/2021

Reviewed on 05/05/2021

Trade Name: 2X Probe ligation buffer

· PAC-3:	
Trade Secret	1,100 mg/m ³
Trade Secret	790 mg/m ³
Trade Secret	550 mg/m ³

7 Handling and Storage

- **Handling**
- **Precautions for safe handling:** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**
- **Components with occupational exposure limits:**
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituents have no known exposure limits.

Trade Secret	
PEL	Long-term value: 15* 5** mg/m ³ mist; *total dust **respirable fraction
TLV	TLV withdrawn-insufficient data human occup. exp.

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing and wash before reuse.
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:**
Protective gloves recommended in manufacturing.



Protective gloves

- **Material of gloves:** Not applicable.
- **Penetration time of glove material:** Not applicable.
- **Eye protection:** Not required.
- **Limitation and supervision of exposure into the environment:** None

(Contd. on page 4)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/05/2021

Reviewed on 05/05/2021

Trade Name: 2X Probe ligation buffer

* 9 Physical and Chemical Properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· **Form:** Liquid
 · **Color:** White
 · **Odor:** Slight
 · **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· **Melting point/Melting range:** Not determined.

· **Flash point:** ≥190 °C (≥374 °F)

· **Flammability (solid, gaseous):** Not determined.

· **Ignition temperature:** ≥400 °C (≥752 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not self-igniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

· **Lower:** Not determined.
 · **Upper:** Not determined.

· **Vapor pressure @ 20 °C (68 °F):** <0.1 hPa

· **Density:** Not determined.

· **Relative density:** Not determined.

· **Vapor density:** Not applicable.

· **Evaporation rate:** Not applicable.

· **Solubility in / Miscibility with:**

· **Water:** Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

· **Dynamic:** Not applicable.
 · **Kinematic:** Not applicable.

· **Solvent content:**

· **Organic solvents:** 20.0 %
 · **VOC content:** 0.00 %

· **Other information:** No further relevant information available.

10 Stability and Reactivity

· **Reactivity:** No further relevant information available.

· **Chemical stability:** Product is stable under normal conditions.

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Possibility of hazardous reactions:** No dangerous reactions known.

· **Conditions to avoid:** No further relevant information available.

· **Incompatible materials:** No further relevant information available.

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/05/2021

Reviewed on 05/05/2021

Trade Name: 2X Probe ligation buffer

- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**

· LD/LC50 values that are relevant for classification:		
Trade Secret		
Oral	LD50	12,600 mg/kg (Rat)
Dermal	LD50	>10,000 mg/kg (Rabbit)
Inhalative	LC50/96 hours	>50,000 mg/l (Trout)

- **Primary irritant effect:**
- **On the skin:** Irritant to skin and mucous membranes.
- **On the eye:** No irritating effect.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

- **Carcinogenic categories:**

· IARC (International Agency for Research on Cancer):
None of the ingredients are listed.

· NTP (National Toxicology Program):
None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):
None of the ingredients are listed.

12 Ecological Information

- **Toxicity:**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

13 Disposal Considerations

- **Waste treatment methods**
- **Recommendation:**
Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/05/2021

Reviewed on 05/05/2021

Trade Name: 2X Probe ligation buffer

- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport Information

- **UN-Number:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es):**
- **DOT, ADR/ADN, ADN, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
No further relevant information available.
- **SARA (Superfund Amendments and Reauthorization):**

Section 355 (extremely hazardous substances):	
None of the ingredients are listed.	

Section 313 (Specific toxic chemical listings):	
None of the ingredients are listed.	

TSCA (Toxic Substances Control Act):	
Trade Secret	ACTIVE
Trade Secret	ACTIVE
Trade Secret	ACTIVE
Trade Secret	ACTIVE

Hazardous Air Pollutants	
None of the ingredients are listed.	

· **California Proposition 65:**

Chemicals known to cause cancer:	
None of the ingredients are listed.	

Chemicals known to cause reproductive toxicity for females:	
None of the ingredients are listed.	

Chemicals known to cause reproductive toxicity for males:	
None of the ingredients are listed.	

Chemicals known to cause developmental toxicity:	
None of the ingredients are listed.	

New Jersey Right-to-Know List:	
Trade Secret	

(Contd. on page 7)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/05/2021

Reviewed on 05/05/2021

Trade Name: 2X Probe ligation buffer

<ul style="list-style-type: none"> · New Jersey Special Hazardous Substance List:
None of the ingredients are listed.
<ul style="list-style-type: none"> · Pennsylvania Right-to-Know List:
Trade Secret
<ul style="list-style-type: none"> · Pennsylvania Special Hazardous Substance List:
None of the ingredients are listed.
<ul style="list-style-type: none"> · Carcinogenic categories:
<ul style="list-style-type: none"> · EPA (Environmental Protection Agency):
None of the ingredients are listed.
<ul style="list-style-type: none"> · TLV (Threshold Limit Value established by ACGIH):
None of the ingredients are listed.
<ul style="list-style-type: none"> · NIOSH-Ca (National Institute for Occupational Safety and Health):
None of the ingredients are listed.
<ul style="list-style-type: none"> · GHS label elements Non-Regulated Material · Hazard pictograms: Non-Regulated Material · Signal word: Non-Regulated Material · Hazard statements: Non-Regulated Material
<ul style="list-style-type: none"> · National regulations:
None of the ingredients are listed.
<ul style="list-style-type: none"> · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Contact:**

· **Date of last revision/ revision number:** 05/05/2021 / 1

· **Abbreviations and acronyms:**

- ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- NIOSH: National Institute for Occupational Safety and Health
- OSHA: Occupational Safety & Health Administration
- TLV: Threshold Limit Value
- PEL: Permissible Exposure Limit
- REL: Recommended Exposure Limit
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/05/2021

Reviewed on 05/05/2021

Trade Name: 2X Probe ligation buffer

· * **Data compared to the previous version altered.**

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/05/2021

Reviewed on 05/05/2021

1 Identification

- **Product Identifier**
- **Trade Name: Post-Ligation Wash Buffer**
- **Product Number:**
2000420
2000419
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description:** No further relevant information available.
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
10x Genomics
6230 Stoneridge Mall Road
Pleasanton, CA 94588 USA
1 925 401 7300
<https://www.10xgenomics.com/>
- **Emergency telephone number:** 1 925 401 7300

2 Hazard(s) Identification

- **Classification of the substance or mixture:**



Corrosion

Eye Dam. 1 H318 Causes serious eye damage.

- **Label elements:**
- **Hazard pictograms:**



- **Signal word:** Danger
- **Hazard-determining components of labeling:**
Trade Secret
- **Hazard statements:**
H318 Causes serious eye damage.
- **Precautionary statements:**
P280 Wear eye protection / face protection.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a poison center/doctor.
- **Unknown acute toxicity:**
This value refers to knowledge of known, established toxicological or ecotoxicological values.
0 % of the mixture consists of component(s) of unknown toxicity.
- **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
- **NFPA ratings (scale 0 - 4)**



Health = 3
Fire = 1
Reactivity = 0

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/05/2021

Reviewed on 05/05/2021

Trade Name: Post-Ligation Wash Buffer

· **HMIS-ratings (scale 0 - 4)**

HEALTH	3	Health = *3
FIRE	1	Fire = 1
REACTIVITY	0	Physical Hazard = 0

· **Hazard(s) not otherwise classified (HNOC):** None known

3 Composition/Information on Ingredients

- **Chemical characterization: Substance**
- **Description:** Mixture of substances listed below with non-hazardous additions.

· **Dangerous Components:**

Trade Secret	Eye Dam. 1, H318	15-35%
--------------	------------------	--------

· **Additional information:**

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4 First-Aid Measures

- **Description of first aid measures**
- **General information:** If symptoms persist, call a physician.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** If skin irritation occurs, consult a doctor.
- **After eye contact:**
If easy to do so, remove contact lenses if worn.
Get medical attention immediately.
Have eyes examined and tested by medical personnel.
Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Rinse opened eye for several minutes under running water.
- **After swallowing:** If swallowed and symptoms occur, consult a doctor.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**
No further relevant information available.

5 Fire-Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** No further relevant information.
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Advice for firefighters**
- **Special protective equipment for firefighters:**
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**
Dispose of the collected material according to regulations.
- **Reference to other sections:**
See Section 7 for information on safe handling.

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See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

Protective Action Criteria for Chemicals

· PAC-1:	
Trade Secret	30 mg/m ³
· PAC-2:	
Trade Secret	330 mg/m ³
· PAC-3:	
Trade Secret	2,000 mg/m ³

7 Handling and Storage

- **Handling**
- **Precautions for safe handling:** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**
- **Components with occupational exposure limits:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment**
- **General protective and hygienic measures:**
Immediately remove all soiled and contaminated clothing and wash before reuse.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
- **Breathing equipment:** Not required.
- **Protection of hands:** Not required.
- **Material of gloves:** Not applicable.
- **Penetration time of glove material:** Not applicable.
- **Eye protection:**



Tightly sealed goggles

- **Limitation and supervision of exposure into the environment:** None

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9 Physical and Chemical Properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· **Form:** Solid
 · **Color:** White
 · **Odor:** Slight
 · **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· **Melting point/Melting range:** Not determined.

· **Flash point:** ≥161 °C (≥321.8 °F)

· **Flammability (solid, gaseous):** Not determined.

· **Ignition temperature:** ≥465 °C (≥869 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not self-igniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

· **Lower:** Not determined.
 · **Upper:** Not determined.

· **Vapor pressure:** Not applicable.

· **Density @ 20 °C (68 °F):** 1.4237 g/cm³ (11.8808 lbs/gal)

· **Relative density:** Not determined.

· **Vapor density:** Not applicable.

· **Evaporation rate:** Not applicable.

· **Solubility in / Miscibility with:**

· **Water:** Fully miscible.
Soluble.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

· **Dynamic:** Not applicable.
 · **Kinematic:** Not applicable.

· **Solvent content:**

· **VOC content:** 0.00 %

· **Solids content:** 100.0 %

· **Other information:** No further relevant information available.

10 Stability and Reactivity

· **Reactivity:** No further relevant information available.

· **Chemical stability:** Product is stable under normal conditions.

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Possibility of hazardous reactions:** No dangerous reactions known.

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- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

Trade Secret

Oral	LD50	10,000 mg/kg (Rat)
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- **Primary irritant effect:**
- **On the skin:** Strong caustic effect on skin and mucous membranes.
- **On the eye:**
Strong irritant with the danger of severe eye injury.
Corrosive effect.
Causes serious eye irritation.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

- **Carcinogenic categories:**

- **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

- **NTP (National Toxicology Program):**

None of the ingredients are listed.

- **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

12 Ecological Information

- **Toxicity:**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

13 Disposal Considerations

- **Waste treatment methods**
- **Recommendation:**
Observe all federal, state and local environmental regulations when disposing of this material.

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Trade Name: Post-Ligation Wash Buffer

- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport Information

- **UN-Number:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es):**
- **DOT, ADR/ADN, ADN, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
No further relevant information available.
- **SARA (Superfund Amendments and Reauthorization):**

Section 355 (extremely hazardous substances):	
None of the ingredients are listed.	
Section 313 (Specific toxic chemical listings):	
None of the ingredients are listed.	
TSCA (Toxic Substances Control Act):	
Trade Secret	ACTIVE
Hazardous Air Pollutants	
None of the ingredients are listed.	
California Proposition 65:	
Chemicals known to cause cancer:	
None of the ingredients are listed.	
Chemicals known to cause reproductive toxicity for females:	
None of the ingredients are listed.	
Chemicals known to cause reproductive toxicity for males:	
None of the ingredients are listed.	
Chemicals known to cause developmental toxicity:	
None of the ingredients are listed.	
New Jersey Right-to-Know List:	
None of the ingredients are listed.	
New Jersey Special Hazardous Substance List:	
None of the ingredients are listed.	

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· Pennsylvania Right-to-Know List:
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· Pennsylvania Special Hazardous Substance List:
None of the ingredients are listed.
· Carcinogenic categories:
· EPA (Environmental Protection Agency):
None of the ingredients are listed.
· TLV (Threshold Limit Value established by ACGIH):
None of the ingredients are listed.
· NIOSH-Ca (National Institute for Occupational Safety and Health):
None of the ingredients are listed.

- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**



- **Signal word:** Danger
- **Hazard-determining components of labeling:**
Trade Secret
- **Hazard statements:**
H318 Causes serious eye damage.
- **Precautionary statements:**
P280 Wear eye protection / face protection.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a poison center/doctor.
- **National regulations:**
None of the ingredients are listed.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

- **Contact:**
- **Date of last revision/ revision number:** 05/05/2021 / 1
- **Abbreviations and acronyms:**
ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)

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Trade Name: **Post-Ligation Wash Buffer**

VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety and Health
OSHA: Occupational Safety & Health Administration
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Eye Dam. 1: Serious eye damage/eye irritation – Category 1

· *** Data compared to the previous version altered.**

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