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SDS PN: 102-691-900

1. Product and company identification				
1.1 Product identifier				
Product name	MAS-Seq for 10x 3' concatenation kit			
Product number(s)	102-407-900			
Other means of identification	This product is a kit box containing 33 reagent tubes.			
	<i>Subcomponent name</i>	<i>Part #</i>	<i>#</i>	<i>Cap color</i>
	MAS PCR mix	102-692-800	2	green
	MAS enzyme	102-692-900	1	light green
	MAS ligase	102-693-000	1	yellow
	MAS ligase buffer	102-693-100	1	white
	MAS capture primer Fwd	102-693-300	1	yellow
	MAS capture primer Rev	102-693-900	1	yellow
	MAS primers premix A	102-694-000	1	orange
	MAS primers premix B	102-694-100	1	orange
	MAS primers premix C	102-694-200	1	orange
	MAS primers premix D	102-694-300	1	orange
	MAS primers premix E	102-694-400	1	orange
	MAS primers premix F	102-694-500	1	orange
	MAS primers premix G	102-694-600	1	orange
	MAS primers premix H	102-694-700	1	orange
	MAS primers premix I	102-694-800	1	orange
	MAS primers premix J	102-694-900	1	orange
	MAS primers premix K	102-695-000	1	orange
	MAS primers premix L	102-695-100	1	orange
	MAS primers premix M	102-695-300	1	orange
	MAS primers premix N	102-695-500	1	orange
	MAS primers premix O	102-695-600	1	orange
	MAS primers premix P	102-695-700	1	orange
	MAS adapter A Fwd	102-695-800	1	orange
	MAS adapter Q Rev	102-695-900	1	orange
	DNA Repair mix	102-696-000	1	green
	Repair buffer	102-696-100	1	purple
	Nuclease mix	102-696-200	1	light green
	Nuclease buffer	102-696-300	1	light purple
	MAS ligation additive	102-696-400	1	white
	Elution buffer	102-700-900	3	red


<b>1.2 Relevant identified uses of the substance or mixture and uses advised against</b>		
Identified use	The MAS-Seq for 10x 3' concatenation kit generates a concatenated library from cDNA molecules generated from the 10X Chromium systems using their single cell 3' kit. The generated library contains programmed adapters that can be directly sequenced on the Sequel® II/IIe systems. This is part 1 of a bundle for the MAS-Seq for Single Cell 3' kit (102-659-600), which should sold together with MAS capture beads kit (102-428-400) and SMRTbell cleanup beads (102-158-300).	
Restrictions on use	Research use only. Professional users only.	
<b>1.3 Details of the supplier of the substance or mixture</b>		
Supplier name and address	Pacific Biosciences of California, Inc. 1305 O'Brien Drive Menlo Park, CA 94025 USA <a href="https://www.pacb.com">https://www.pacb.com</a>	
Supplier phone	+1.650.521.8000	
<b>1.4 Emergency telephone number</b>		
Within USA and Canada	Call CHEMTREC 1-800-424-9300 (reference CCN# 656805)	
Outside USA and Canada	<a href="mailto:techsupport@pacb.com">techsupport@pacb.com</a>	
<b>2. Hazard(s) identification</b>		
<b>2.1 Classification of the substance or mixture</b>		
The kit contains hazardous substances. <sup>1</sup> Each subcomponent is classified as follows.		
<i>Subcomponent name</i>	<i>Part #</i>	<i>Classification</i>
MAS PCR mix	102-692-800	Specific target organ toxicity - single oral exposure – central nervous system (category 2).
MAS enzyme	102-692-900	Not a hazardous material.
MAS ligase	102-693-000	Acute aquatic toxicity (category 3), Chronic aquatic toxicity (category 3).
MAS ligase buffer	102-693-100	Acute aquatic toxicity (category 3), Chronic aquatic toxicity (category 3).
MAS capture primer Fwd	102-693-300	Not a hazardous material.
MAS capture primer Rev	102-693-900	Not a hazardous material.
MAS primers premix A	102-694-000	Not a hazardous material.
MAS primers premix B	102-694-100	Not a hazardous material.
MAS primers premix C	102-694-200	Not a hazardous material.
MAS primers premix D	102-694-300	Not a hazardous material.
MAS primers premix E	102-694-400	Not a hazardous material.
MAS primers premix F	102-694-500	Not a hazardous material.
MAS primers premix G	102-694-600	Not a hazardous material.
MAS primers premix H	102-694-700	Not a hazardous material.
MAS primers premix I	102-694-800	Not a hazardous material.
MAS primers premix J	102-694-900	Not a hazardous material.
MAS primers premix K	102-695-000	Not a hazardous material.
MAS primers premix L	102-695-100	Not a hazardous material.
MAS primers premix M	102-695-300	Not a hazardous material.

<sup>1</sup> Classification in accordance with 29CFR1910 (OSHA HCS) and UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

MAS primers premix N	102-695-500	Not a hazardous material.
MAS primers premix O	102-695-600	Not a hazardous material.
MAS primers premix P	102-695-700	Not a hazardous material.
MAS adapter A Fwd	102-695-800	Not a hazardous material.
MAS adapter Q Rev	102-695-900	Not a hazardous material.
DNA Repair mix	102-696-000	Not a hazardous material.
Repair buffer	102-696-100	Not a hazardous material.
Nuclease mix	102-696-200	Not a hazardous material.
Nuclease buffer	102-696-300	Not a hazardous material.
MAS ligation additive	102-696-400	Not a hazardous material.
Elution buffer	102-700-900	Not a hazardous material.

## 2.2 GHS label elements and precautionary statements

Information is provided for the hazardous components listed in section 2.1

<i>Product</i>	<i>Pictogram</i>	<i>Signal word</i>	<i>Hazard statement(s)</i>	<i>Precautionary statement(s)</i>
PCR mix		Warning	<ul style="list-style-type: none"> <li>May cause damage to organs</li> </ul>	<ul style="list-style-type: none"> <li>Do not breathe mist, vapors, or spray.</li> <li>Wash skin thoroughly after handling.</li> <li>Do not eat, drink or smoke when using this product.</li> <li>If exposed or concerned, get emergency medical help immediately.</li> <li>Dispose of contents and container in accordance with local regulations.</li> </ul>
MAS ligase	None	None	<ul style="list-style-type: none"> <li>Harmful to aquatic life.</li> <li>Harmful to aquatic life with long-lasting effects</li> </ul>	<ul style="list-style-type: none"> <li>Avoid release to the environment.</li> <li>Dispose of contents and container in accordance with local regulations.</li> </ul>
MAS ligase buffer	None	None	<ul style="list-style-type: none"> <li>Harmful to aquatic life.</li> <li>Harmful to aquatic life with long-lasting effects</li> </ul>	<ul style="list-style-type: none"> <li>Avoid release to the environment.</li> <li>Dispose of contents and container in accordance with local regulations.</li> </ul>

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

The MAS enzyme, Nuclease mix and Nuclease buffer contains bovine derived material. Certificate of origin available upon request.

The DNA repair mix contains materials derived from e.coli.

The substances do not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission

## 3. Composition / information on ingredients

### 3.1 Substances

Common name and synonyms	MAS-Seq for 10x 3' concatenation kit
CAS number	None
Other unique identifiers	None

### 3.2 Hazardous components

The following hazardous ingredients are present.

<i>Subcomponent</i>	<i>Hazardous ingredient(s)</i>	<i>CAS</i>	<i>GHS classification</i>	<i>Concentration (wt%)</i>
MAS PCR mix	tetramethylammonium chloride	75-57-0	Acute toxicity, oral (category 2); Acute toxicity, dermal (category 3); Skin Irritation (category 3); Specific target organ toxicity – single exposure (category 1)	> 1% and < 2.5
MAS ligase	Triton™ X-100	9036-19-5	Acute toxicity, oral (category 4); Skin irritation (category 2); Serious eye damage (category 1); Acute aquatic toxicity (category 1); Chronic aquatic toxicity (category 1)	0.1%

MAS ligase buffer	Triton™ X-100	9036-19-5	Acute toxicity, oral (category 4); Skin irritation (category 2); Serious eye damage (category 1); Acute aquatic toxicity (category 1); Chronic aquatic toxicity (category 1)	0.1%
<b>4. First aid measures</b>				
<b>4.1 Description of first aid measures</b>				
General advice		Consult a physician. Show this safety data sheet to the physician.		
If inhaled		If breathed in, move person into fresh air. If not breathing, give artificial respiration.		
In case of skin contact		Wash off with water.		
In case of eye contact		Flush eyes with water.		
If swallowed		Never give anything by mouth to an unconscious person. Rinse mouth with water.		
<b>4.2 Most important symptoms/effects, both acute and delayed</b>				
No data available. Refer to section 2.2 and section 11 for additional information.				
<b>4.2 Indication of any immediate medical attention and special treatment needed</b>				
No data available				
<b>5. Fire-fighting measures</b>				
<b>5.1 Suitable extinguishing media</b>				
Dry chemical, carbon dioxide, foam, or water.				
<b>5.2 Special hazards arising from the substance or mixture</b>				
Combustion will produce oxides of carbon and nitrogen.				
<b>5.3 Advice for firefighters (special protective equipment or precautions)</b>				
Wear self-contained breathing apparatus for fire-fighting as necessary.				
<b>6. Accidental release measures</b>				
<b>6.1 Personal precautions, protective equipment and emergency procedures</b>				
Avoid breathing vapors, mists, or gas. For personal protection see section 8.0.				
<b>6.2 Environmental precautions</b>				
Avoid release to the environment. Report spills and releases as required to appropriate authorities.				
<b>6.3 Methods and materials for cleanup</b>				
Wear personal protective equipment, wipe up with paper towel (or similar), and contain in closed containers.				
<b>6.4 Reference to other sections</b>				
For disposal see section 13.				
<b>7. Handling and storage</b>				
<b>7.1 Precautions for safe handling</b>				
For all components, utilize standard good lab practices, use in a well-ventilated area and wear standard PPE (gloves, labcoat, safety glasses). In addition to the general practices, follow specific practices as noted. <ul style="list-style-type: none"> <li>MAS PCR Mix: Do not eat, drink or smoke when using the product. Do not breath mist, vapors or spray. Wash skin thoroughly after handling.</li> </ul>				
<b>7.2 Conditions for safe storage, including any incompatibilities</b>				
For all components, keep containers tightly closed at the recommended storage temperature. In addition to the general practices, follow specific practices as noted. <ul style="list-style-type: none"> <li>MAS PCR Mix: Store locked up.</li> </ul>				
<b>8. Exposure controls / personal protection</b>				
<b>8.1 Control parameters</b>				
Contains no substances with occupational exposure limit values.				
<b>8.2 Exposure controls</b>				
<b>Appropriate engineering controls:</b>				

General industrial hygiene practice. No special ventilation required for normal use.	
<b>Personal protective equipment (PPE):</b>	
Eye/face protection	Safety glasses
Skin and body protection	Latex or nitrile gloves; lab coat /apron
Respiratory protection	None required
<b>9. Physical and chemical properties</b>	
<b>9.1 Information on basic physical and chemical properties</b>	
Appearance	Each reagent tube contains clear colorless liquid.
Odor	No odor
Odor threshold	No data available
pH	7.0-9.0
Melting point/freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limit	No data available
Vapor pressure	No data available
Relative density	No data available
Solubility(ies)	No data available
Partition coefficient: n-octonal/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
<b>10. Stability and reactivity</b>	
Reactivity	This product is not reactive under normal conditions of storage and use.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No data available
Conditions to avoid	No data available
Incompatible materials	Avoid contact with strong acids, bases and oxidizers.
Hazardous decomposition products	No data available. In the event of fire see section 5.
<b>11. Toxicological information</b>	
<b>11.1 Information on likely routes of exposure</b>	
The most likely route of exposure is via skin or eye contact. Exposure via inhalation or ingestion is less likely.	
<b>11.2 Symptoms related to the physical, chemical, and toxicological characteristics</b>	
No data available	
<b>11.3 Delayed and immediate effects, and chronic effects from short-and long-term exposure</b>	
Eyes	No data available
Skin	No data available
Inhalation	No data available
Ingestion	No data available
Chronic effects	No data available
Aggravated medical conditions	No data available
Interactions with other chemicals	No data available
<b>11.4 Numerical measures of toxicity</b>	

Acute toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/irritation	No data available
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
Reproductive toxicity	No data available
Specific target organ toxicity	No data available
<b>11.5 Carcinogenicity</b>	
No ingredients in this product are listed as carcinogens by ACGIH, IARC, NTP or OSHA.	
<b>12. Ecological information</b>	
Ecotoxicity	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
Results of PBT and vPvB assessment	None Required
Other adverse effects	No data available
<b>13. Disposal considerations</b>	
Dispose all waste in accordance with local, regional and national regulations.	
Product	See above
Contaminated packaging	See above
US EPA waste number	No EPA waste numbers apply. Not regulated as a US federal hazardous waste. Not regulated under Title 22 as a California hazardous waste.
<b>14. Transport information</b>	
Transportation of this product is not regulated under ICAO, IMDG or US DOT.	
<b>15. Regulatory information</b>	
<b>15.1 USA federal regulations</b>	
SARA 302	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302
SARA 313	This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313
SARA 311/312	MAS PCR Mix: Specific target organ toxicity (single exposure)
TSCA	Research use only. Contains substance(s) not listed on the TSCA inventory.
<b>15.2 USA state regulations</b>	
CA Prop 65	This kit does not contain any chemicals known to the state of California to cause cancer or adverse reproductive health effects
<b>16. Other information</b>	
Prepared by	Pacific Biosciences of California, Inc. Environment, Health and Safety 1305 O'Brien Drive Menlo Park, CA 94025 USA safety@pacb.com
Further information	The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. It is not a warranty or quality specification. This information relates only to the specific material designated and may not be valid for use in combination with any other material or in any other process.

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