

Product identifier

**Product Name** 

HiFi plex prep kit 96

Other means of identification

Product Code(s) 103-122-800

This product is a kit box containing 9 reagent items

Chemical name	Part number	Quantity	Cap color	Classification
Repair buffer M96	103-286-000	1	Purple	Skin irritant (category 3), Serious eye damage (category 1).
End repair mix M96	103-286-100	1	Blue	Not a hazardous material.
DNA repair mix M96	103-286-200	1	Green	Not a hazardous material.
Ligation mix M96	103-286-300	1	Yellow	Not a hazardous material.
Ligation enhancer M96	103-286-400	1	Red	Not a hazardous material.
Nuclease buffer M96	103-286-500	1	Light Purple	Not a hazardous material.
Nuclease mix M96	103-286-600	1	Light green	Not a hazardous material.
Stop solution M96	103-302-200	2	White	Not a hazardous material.

\*Hazard classifications provided in the table are in accordance with UN Globally Harmonized System of Classification and Labelling of Chemicals. Country specific regulations may differ. Refer to the SDS for individual components for your country specific information.



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Revision date 04-Oct-2024

#### **Revision Number** 1

1. Identification	
Product identifier	
Product Name	Repair buffer M96
Other means of identification	
Product Code(s)	103-286-000
Synonyms	None
Recommended use of the chemical	and restrictions on use
Recommended use	As part of kit
Restrictions on use	For research use only
Details of the supplier of the safety	data sheet
Manufacturer Address PacBio 1305 O'Brien Drive Menlo Park, CA 94025 USA www.pacb.com	
E-mail address	techsupport@pacb.com
Emergency telephone number	
Emergency Telephone	CHEMTREC 1-800-424-9300 (CCN#656805)

#### 2. Hazard(s) identification

#### **Classification**

Sorious ava damaga/ava irritation	Cotomer 1
Serious eve damage/eve irritation	ICatedory 1
e en e a e e j e dannage, e j e n naden	e allegely i

#### Label elements



Danger

Hazard statements

Causes serious eye damage

**Precautionary Statements - Prevention** 

Wear eye and face protection

#### **Precautionary Statements - Response**

#### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER or doctor

#### Other information

Causes mild skin irritation.

#### 3. Composition/information on ingredients

#### Substance

Not applicable.

#### Mixture

Chemical name	CAS No.	Weight-%	Information Review	Date HMIRA filed and date exemption granted (if applicable)
Magnesium chloride	7786-30-3	0 - 10%	-	-
Dithiothreitol	3483-12-3	0 - 10%	-	-

#### 4. First-aid measures

#### Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.	
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur.	
Eye contact	Get immediate medical attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.	
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.	
Ingestion	Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.	
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).	
Most important symptoms and effe	cts, both acute and delayed	
Symptoms	Burning sensation. Prolonged contact may cause redness and irritation.	
Effects of Exposure	No information available.	
Indication of any immediate medical attention and special treatment needed		
Note to physicians	Treat symptomatically.	

#### 5. Fire-fighting measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the
	surrounding environment.

Specific hazards arising from the chemical	No information available.
Explosion data Sensitivity to mechanical impac Sensitivity to static discharge	<b>ct</b> None. None.
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
6. Accidental release measures	
Personal precautions, protective e	quipment and emergency procedures
Personal precautions Other information	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Refer to protective measures listed in Sections 7 and 8.
Methods and material for containm	ent and cleaning up
Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Pick up and transfer to properly labeled containers.
7. Handling and storage	
Precautions for safe handling	
Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.
Conditions for safe storage, includ	ing any incompatibilities
Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.
8. Exposure controls/personal	protection
<u>Control parameters</u> Exposure Limits	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies
Appropriate engineering controls	
Engineering controls	Showers Eyewash stations Ventilation systems.
Individual protection measures, su	ch as personal protective equipment
Eye/face protection	Tight sealing safety goggles.
Hand protection	Wear suitable gloves.
Skin and body protection	Wear suitable protective clothing.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

#### 9. Physical and chemical properties

Information on basic physical and o		
Physical state	Liquid	
Appearance	Liquid	
Color	clear colorless	
Odor	Odorless	
Odor threshold	No information available	
Property_	Values	Remarks • Method
рН	7 - 8.5	None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling rang	eNo data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive	No data available	
limits		
Lower flammability or explosive	No data available	
limits		
Vapor pressure	No data available	None known
Relative vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known

#### 10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	None known based on information supplied.
Incompatible materials	Strong acids. Strong bases. Strong oxidizing agents.

Hazardous decomposition products None known based on information supplied.

#### 11. Toxicological information

#### Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye damage. May cause irreversible damage to eyes.
Skin contact	Specific test data for the substance or mixture is not available. Causes mild skin irritation.

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

#### Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness. Burning. May cause blindness. Prolonged contact may cause redness and irritation.

Acute toxicity

Numerical measures of toxicity

#### The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	14,141.40 mg/kg		
ATEmix (dermal)	59,333.30 mg/kg		
ATEmix (inhalation-gas)	99,999.00 ppm		
ATEmix (inhalation-vapor)	99,999.00 mg/l		
ATEmix (inhalation-dust/mi	i <b>st)</b> 99,999.00 mg/l		
Component Information			
Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Magnesium chloride	= 2800 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
7786-30-3			

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	May cause skin irritation. Classification based on data available for ingredients. Causes mild skin irritation.
Serious eye damage/eye irritation	Classification based on data available for ingredients. Causes burns. Causes serious eye damage.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

#### 12. Ecological information

Ecotoxicity	The environmental impact of this product has not been fully investigated.			
Chemical name	Algae/aquatic plan	rs Fish	Toxicity to microorganisms	Crustacea
Magnesium chloride 7786-30-3	EC50: >82.7mg/L (7 Pseudokirchneriel subcapitata)		-	EC50: =140mg/L (48h, Daphnia magna)
Persistence and degradability No information available.				
<b>Bioaccumulation</b> There is no data for this product.				
Other adverse effects No information		nation available.		
13. Disposal considerations				

**Disposal methods** 

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

#### 14. Transport information

DOT	Not regulated
TDG	Not regulated
<u>MEX</u>	Not regulated
ICAO (air)	Not regulated
IATA	Not regulated
IMDG	Not regulated

#### 15. Regulatory information International Inventories TSCA

Contact supplier for inventory compliance status.

Chemical name	CAS No.	Inventory Listing Status	Commercial Activity Designation
Water	7732-18-5	Present	Active
Tris-HCI	1185-53-1	Present	Active
2' Deoxyadenosine 5'-triphosphatedisodium salt	1927-31-7	-	Unknown *
Dithiothreitol	3483-12-3	Present	Active
Magnesium chloride	7786-30-3	Present	Active
β-Nicotinamide adenine dinucleotide hydrate	53-84-9	Present	Active
ATP disodium salt trihydrate	51963-61-2	-	Unknown *
2'-Deoxythymidine-5'triphosphate	365-08-2	-	Unknown *
2'Deoxycytidine-5'triphosphate	2056-98-6	-	Unknown *
2'-Deoxyguanosine-5'triphosphate	2564-35-4	-	Unknown *

\*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

DSL/NDSL EINECS/ELINCS	Does not comply Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECI	Does not comply
PICCS	Does not comply
AIIC	Does not comply
NZIOC	Does not comply

Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AIIC - Australian Inventory of Industrial Chemicals

NZIOC - New Zealand Inventory of Chemicals

#### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

#### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

#### US State Regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals.

#### U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water	-	-	Х
7732-18-5			

#### U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other informatio	n				
NFPA HMIS	Health hazards3Health hazards3	Flammability Flammability		Instability 0 Physical hazards 0	Special hazards - Personal protection X
Key or legend to abbre	viations and acronyms	used in the safe	ety data sh	eet	
TWATWACeilingMaxiKey literature referenceAgency for Toxic SubstaU.S. Environmental ProteEuropean Food Safety AEnvironmental ProtectionAcute Exposure GuidelirU.S. Environmental ProteU.S. Environmental ProteU.S. Environmental ProteU.S. Environmental ProteFood Research JournalHazardous Substance DInternational Uniform ChNational Institute of TechAustralia National IndustNIOSH (National InstitutNational Library of MediaU.S. National ToxicologyNew Zealand's ChemicaOrganization for Econom	n Agency ne Level(s) (AEGL(s)) ection Agency Federal In- ection Agency High Produ- tatabase micial Information Datab nology and Evaluation (N rial Chemicals Notification e for Occupational Safety cine's ChemID Plus (NLM cine's PubMed database v Program (NTP) I Classification and Inform nic Co-operation and Dev	used to compile ry (ATSDR) Database secticide, Fungic action Volume Cl ase (IUCLID) NITE) n and Assessme and Health) CIP) (NLM PUBMED) nation Database elopment Enviror	ide, and Ro hemicals nt Scheme (CCID) nment, Hea		ns

Organization for Economic Co-operation and Development Screening Information Data Set World Health Organization

Prepared By	PacBio Environment, Health, and Safety 1305 O'Brien Drive Menlo Park, CA 94025 USA safety@pacb.com.
Revision date	04-Oct-2024
Revision Note	No information available

#### Disclaimer

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.Research use only. Not for use in diagnostic procedures. ©2024, Pacific Biosciences of California, Inc. ("PacBio"). All rights reserved. Information in this document is subject to change without notice. PacBio assumes no responsibility for any errors or omissions in this document. Certain notices, terms, conditions and/or use restrictions may pertain to your use of PacBio products and/or third-party products. Refer to the applicable PacBio terms and conditions of sale and to the applicable license terms at pacb.com/license. Pacific Biosciences, the PacBio logo, PacBio, Circulomics, Omniome, SMRT, SMRTbell, Iso-Seq, Sequel, Nanobind, SBB, Revio, Onso, Apton, Kinnex, and PureTarget, are trademarks of PacBio.

End of Safety Data Sheet



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Revision date 04-Oct-2024

#### **Revision Number** 1

1. Identification	
Product identifier	
Product Name	End repair mix M96
Other means of identification	
Product Code(s)	103-286-100
Synonyms	None
Recommended use of the chemical	and restrictions on use
Recommended use	As part of kit
Restrictions on use	For research use only
Details of the supplier of the safety	data sheet
<u>Manufacturer Address</u> PacBio 1305 O'Brien Drive Menlo Park, CA 94025 USA www.pacb.com	
E-mail address	techsupport@pacb.com
Emergency telephone number	
Emergency Telephone	CHEMTREC 1-800-424-9300 (CCN#656805)

#### 2. Hazard(s) identification

#### **Classification**

This product is not considered hazardous by either the US OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Workplace Hazardous Material Information System (WHMIS).

#### Label elements

#### Hazard statements

This product is not considered hazardous by either the US OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Workplace Hazardous Material Information System (WHMIS).

Other information

No information available.

#### 3. Composition/information on ingredients

#### Substance

Not applicable.

#### Mixture

The product contains no substances which at their given concentration, are considered to be hazardous to health.

4. First-aid measures	
Description of first aid measures	
Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water.
Ingestion	Rinse mouth.
Most important symptoms and effe	cts, both acute and delayed
Symptoms	No information available.
Effects of Exposure	No information available.
Indication of any immediate medica	I attention and special treatment needed
Note to physicians	Treat symptomatically.
5. Fire-fighting measures	
Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Specific hazards arising from the chemical	No information available.
Explosion data Sensitivity to mechanical impac Sensitivity to static discharge	t None. None.
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
C Appidental valance managemen	
6. Accidental release measures	

Personal precautions, protective equipment and emergency procedures		
Personal precautions	Ensure adequate ventilation.	
Methods and material for containment and cleaning up		
Methods for containment	Prevent further leakage or spillage if safe to do so.	
Methods for cleaning up	Pick up and transfer to properly labeled containers.	

7. Handling and storage	
Precautions for safe handling	
Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice.
Conditions for safe storage, includ	ing any incompatibilities
Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.
8. Exposure controls/personal	protection
	biolection
<u>Control parameters</u> Exposure Limits	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies
Appropriate engineering controls	
Engineering controls	Showers Eyewash stations Ventilation systems.
Individual protection measures, su	ch as personal protective equipment
Eye/face protection	No special protective equipment required.
Hand protection	No special protective equipment required.
Skin and body protection	No special protective equipment required.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

#### 9. Physical and chemical properties

AppearanceLiquidColorclear colorlessOdorOdorless
Odor Odorless
Odor threshold No information available
Property Values Remarks • Method
<b>pH</b> 7 - 8.5 None known
Melting point / freezing point         No data available         None known
Initial boiling point and boiling rangeNo data available None known
Flash point No data available None known
Evaporation rate No data available None known
Flammability Limit in Air None known
Upper flammability or explosive No data available
limits
Lower flammability or explosive No data available
limits
Vapor pressure No data available None known

Relative vapor density	No data available	None known	
Relative density	No data available	None known	
Water solubility	No data available	None known	
Solubility(ies)	No data available	None known	
Partition coefficient	No data available	None known	
Autoignition temperature	No data available	None known	
Decomposition temperature	No data available	None known	
10 Stability and reactivity			

#### 10. Stability and reactivity

Reactivity	No information available.	
Chemical stability	Stable under normal conditions.	
Possibility of hazardous reactions	None under normal processing.	
Conditions to avoid	None known based on information supplied.	
Incompatible materials	None known based on information supplied.	
Hazardous decomposition products None known based on information supplied.		

#### 11. Toxicological information

#### Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.
Symptoms related to the physical, or	chemical and toxicological characteristics
Symptoms	No information available.
Acute toxicity	
Numerical measures of toxicity	
The following values are calculated ATEmix (oral) ATEmix (dermal) ATEmix (inhalation-gas) ATEmix (inhalation-vapor) ATEmix (inhalation-dust/mist)	based on chapter 3.1 of the GHS document 31,500.00 mg/kg 25,000.00 mg/kg 99,999.00 ppm 99,999.00 mg/l 6.88 mg/l
Delayed and immediate effects as v	vell as chronic effects from short and long-term exposure
Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.

STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

#### 12. Ecological information

Ecotoxicity The environmental impact of this product has not been fully investigated.		
Persistence and degradability	No information available.	
Bioaccumulation	There is no data for this product.	
Other adverse effects	No information available.	
13. Disposal considerations		
Disposal methods		

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

#### 14. Transport information

DOT	Not regulated
TDG	Not regulated
MEX	Not regulated
ICAO (air)	Not regulated
IATA	Not regulated
IMDG	Not regulated

#### 15. Regulatory information

#### International Inventories TSCA

Contact supplier for inventory compliance status.

Chemical name CAS No.		Inventory Listing Status	Commercial Activity Designation
Water	7732-18-5	Present	Active
Glycerol	56-81-5	Present	Active
Tris-HCI	1185-53-1	Present	Active
Potassium chloride	7747-40-7	-	Unknown *
Igepal CA-630	9002-93-1	Present	Active
Tween 20	9005-64-5	Present	Active
Dithiothreitol	3483-12-3	Present	Active
Ethylenediamine tetraacetic acid	60-00-4	Present	Active
e.coli derived enzyme	-	-	Unknown *
E.coli Protein (SSB)	-	-	Unknown *
Exonuclease I	9037-46-1	-	Unknown *

\*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECI	Does not comply
PICCS	Does not comply
AIIC	Does not comply
NZIOC	Does not comply

#### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AIIC - Australian Inventory of Industrial Chemicals

NZIOC - New Zealand Inventory of Chemicals

#### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

#### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

#### US State Regulations

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

#### U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water	-	-	Х
7732-18-5			
Glycerol	Х	Х	Х
56-81-5			
Ethylenediamine tetraacetic acid	Х	X	Х
60-00-4			

#### U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

#### 16. Other information

		•	-	Special hazards - Personal protection X
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Key or legend to abbreviations and acronyms used in the safety data sheet

TWA	Exposure controls TWA (time-weighte Maximum limit vale		STEL Sk*	STEL (Short Term Exposure Limit) Skin designation
Agency for Toxic Su U.S. Environmental European Food Safe Environmental Prote Acute Exposure Gui U.S. Environmental U.S. Environmental Food Research Jour Hazardous Substand International Uniform National Institute of Australia National Ins NIOSH (National Ins National Library of M National Library of M U.S. National Toxico New Zealand's Cher Organization for Eco	bstances and Dise Protection Agency ety Authority (EFS action Agency deline Level(s) (A Protection Agency Protection Agency rnal ce Database n Chemical Inform Technology and E dustrial Chemical: stitute for Occupat Medicine's ChemIE Medicine's PubMed blogy Program (NT mical Classification ponomic Co-operation ponomic Co-operation	EGL(s)) / Federal Insecticide, Fun- / High Production Volume ation Database (IUCLID) valuation (NITE) s Notification and Assessr ional Safety and Health) D Plus (NLM CIP) d database (NLM PUBME P) n and Information Database on and Development Environ	gicide, and Ro Chemicals nent Scheme D) se (CCID) ronment, Heal Production V	(NICNAS) th, and Safety Publications olume Chemicals Program
Prepared By		PacBio Environment, Health, an 1305 O'Brien Drive Menlo Park, CA 94025 USA safety@pacb.com.	d Safety	

Revision date	04-Oct-2024

Revision Note	
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#### **Disclaimer**

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.Research use only. Not for use in diagnostic procedures. ©2024, Pacific Biosciences of California, Inc. ("PacBio"). All rights reserved. Information in this document is subject to change without notice. PacBio assumes no responsibility for any errors or omissions in this document. Certain notices, terms, conditions and/or use restrictions may pertain to your use of PacBio products and/or third-party products. Refer to the applicable PacBio terms and conditions of sale and to the applicable license terms at pacb.com/license. Pacific Biosciences, the PacBio logo, PacBio, Circulomics, Omniome, SMRT, SMRTbell, Iso-Seq, Sequel, Nanobind, SBB, Revio, Onso, Apton, Kinnex, and PureTarget, are trademarks of PacBio.

No information available

**End of Safety Data Sheet** 



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Revision date 07-Oct-2024

#### Revision Number 1

1. Identification		
Product identifier		
Product Name	DNA repair mix M96	
Other means of identification		
Product Code(s)	103-286-200	
Synonyms	None	
Recommended use of the chemical and restrictions on use		
Recommended use	See product insert	
Restrictions on use	For research use only	
Details of the supplier of the safety data sheet		
Manufacturer Address PacBio 1305 O'Brien Drive Menlo Park, CA 94025 USA www.pacb.com		
E-mail address	techsupport@pacb.com	
Emergency telephone number		
Emergency Telephone	CHEMTREC 1-800-424-9300 (CCN#656805)	

#### 2. Hazard(s) identification

#### **Classification**

This product is not considered hazardous by either the US OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Workplace Hazardous Material Information System (WHMIS).

#### Label elements

#### Hazard statements

This product is not considered hazardous by either the US OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Workplace Hazardous Material Information System (WHMIS).

Other information No information available. Biological Material Product contains substance(s) derived from bacteria.

#### 3. Composition/information on ingredients

#### Substance

Not applicable.

#### Mixture

The product contains no substances which at their given concentration, are considered to be hazardous to health.

4. First-aid measures		
Description of first aid measures		
Inhalation	Remove to fresh air.	
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.	
Skin contact	Wash skin with soap and water.	
Ingestion	Rinse mouth.	
Most important symptoms and effects, both acute and delayed		
Symptoms	No information available.	
Effects of Exposure	No information available.	
Indication of any immediate medica	l attention and special treatment needed	
Note to physicians	Treat symptomatically.	
5. Fire-fighting measures		
Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.	
Specific hazards arising from the chemical	No information available.	
Explosion data Sensitivity to mechanical impac Sensitivity to static discharge	t None. None.	
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.	
6. Accidental release measures		
Personal precautions, protective equipment and emergency procedures		
Personal precautions	Ensure adequate ventilation.	
Methods and material for containment and cleaning up		

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. Handling and storage		
Precautions for safe handling		
Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice.	
Conditions for safe storage, including	ng any incompatibilities	
Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.	
8. Exposure controls/personal p	rotection	
<u>Control parameters</u> Exposure Limits	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies	
Appropriate engineering controls		
Engineering controls	Showers Eyewash stations Ventilation systems.	
Individual protection measures, such as personal protective equipment		
Eye/face protection	No special protective equipment required.	
Hand protection	No special protective equipment required.	
Skin and body protection	No special protective equipment required.	
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.	
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.	

#### 9. Physical and chemical properties

Physical state	Liquid	
Appearance	Liquid	
Color	clear colorless	
Odor	Odorless	
Odor threshold	No information available	
Property	Values	Remarks • Method
pH	No data available	None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling rang	<b>je</b> No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	

Vapor pressure	No data available
Relative vapor density	No data available
Relative density	No data available
Water solubility	No data available
Solubility(ies)	No data available
Partition coefficient	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available

None known None known None known None known None known None known None known

#### 10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

#### 11. Toxicological information

#### Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.	
Eye contact	Specific test data for the substance or mixture is not available.	
Skin contact	Specific test data for the substance or mixture is not available.	
Ingestion	Specific test data for the substance or mixture is not available.	
Symptoms related to the physical, of	chemical and toxicological characteristics	
Symptoms	No information available.	
Acute toxicity		
Numerical measures of toxicity		
The following values are calculated based on chapter 3.1 of the GHS documentATEmix (oral)28,000.00mg/kgATEmix (dermal)22,222.20mg/kgATEmix (inhalation-gas)99,999.00ppmATEmix (inhalation-vapor)99,999.00mg/lATEmix (inhalation-dust/mist)6.11mg/l		
Delayed and immediate effects as well as chronic effects from short and long-term exposure		
Skin corrosion/irritation	No information available.	
Serious eye damage/eye irritation	No information available.	
Respiratory or skin sensitization	No information available.	
Germ cell mutagenicity	No information available.	
Carcinogenicity	No information available.	
Reproductive toxicity	No information available.	

STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

12. Ecological information	
Ecotoxicity	The environmental impact of this product has not been fully investigated.
Persistence and degradability	No information available.
Bioaccumulation	There is no data for this product.
Other adverse effects	No information available.
13. Disposal considerations	
Disposal methods	
Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

#### 14. Transport information

DOT	Not regulated
TDG	Not regulated
MEX	Not regulated
ICAO (air)	Not regulated
ΙΑΤΑ	Not regulated
IMDG	Not regulated

#### 15. Regulatory information International Inventories

#### TSCA

Contact supplier for inventory compliance status.

Chemical name	CAS No.	Inventory Listing Status	Commercial Activity Designation
Water	7732-18-5	Present	Active
Glycerol	56-81-5	Present	Active
Tris-HCI	1185-53-1	Present	Active
Sodium chloride	7647-14-5	Present	Active
e.coli derived enzyme	-	-	Unknown *

\*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECI	Does not comply

PICCS	Does not comply
AIIC	Does not comply
NZIoC	Does not comply

Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

AIIC - Australian Inventory of Industrial Chemicals

NZIOC - New Zealand Inventory of Chemicals

#### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

#### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

#### US State Regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals.

#### U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	Х
Glycerol 56-81-5	Х	Х	Х

#### U.S. EPA Label Information

**EPA Pesticide Registration Number** Not applicable

16. Other information					
NFPA HMIS	Health hazards 2 Health hazards 0	Flammability Flammability		Instability 0 Physical hazards 0	Special hazards - Personal protection X
Key or legend to abbreviations and acronyms used in the safety data sheet					
LegendSection 8: Exposure controls/personal protectionTWATWA (time-weighted average)STELSTEL (Short Term Exposure Limit)CeilingMaximum limit valueSk*Skin designation					

**Key literature references and sources for data used to compile the SDS** Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) Environmental Protection Agency Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) National Institute of Technology and Evaluation (NITE) Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's ChemID Plus (NLM CIP) National Library of Medicine's PubMed database (NLM PUBMED) U.S. National Toxicology Program (NTP) New Zealand's Chemical Classification and Information Database (CCID) Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program Organization for Economic Co-operation and Development Screening Information Data Set World Health Organization

#### Prepared By

Tiopalou Dy	Environment, Health, and Safety 1305 O'Brien Drive Menlo Park, CA 94025 USA safety@pacb.com.
Revision date	07-Oct-2024

PacBio

**Revision Note** 

No information available

#### Disclaimer

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.Research use only. Not for use in diagnostic procedures. ©2024, Pacific Biosciences of California, Inc. ("PacBio"). All rights reserved. Information in this document is subject to change without notice. PacBio assumes no responsibility for any errors or omissions in this document. Certain notices, terms, conditions and/or use restrictions may pertain to your use of PacBio products and/or third-party products. Refer to the applicable PacBio terms and conditions of sale and to the applicable license terms at pacb.com/license. Pacific Biosciences, the PacBio logo, PacBio, Circulomics, Omniome, SMRT, SMRTbell, Iso-Seq, Sequel, Nanobind, SBB, Revio, Onso, Apton, Kinnex, and PureTarget, are trademarks of PacBio.

#### **End of Safety Data Sheet**



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Revision date 07-Oct-2024

#### **Revision Number** 1

1. Identification	
Product identifier	
Product Name	Ligation mix M96
Other means of identification	
Product Code(s)	103-286-300
Synonyms	None
Recommended use of the chemical	and restrictions on use
Recommended use	As part of kit
Restrictions on use	For research use only
Details of the supplier of the safety	data sheet
Manufacturer Address PacBio 1305 O'Brien Drive Menlo Park, CA 94025 USA www.pacb.com	
E-mail address	techsupport@pacb.com
Emergency telephone number	
Emergency Telephone	CHEMTREC 1-800-424-9300 (CCN#656805)

#### 2. Hazard(s) identification

#### **Classification**

This product is not considered hazardous by either the US OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Workplace Hazardous Material Information System (WHMIS).

#### Label elements

#### Hazard statements

This product is not considered hazardous by either the US OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Workplace Hazardous Material Information System (WHMIS).

Other information No information available. Biological Material Product contains substance(s) derived from bacteria.

#### 3. Composition/information on ingredients

#### Substance

Not applicable.

Methods for cleaning up

#### <u>Mixture</u>

The product contains no substances which at their given concentration, are considered to be hazardous to health.

4. First-aid measures	
Description of first aid measures	
Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water.
Ingestion	Rinse mouth.
Most important symptoms and effe	ects, both acute and delayed
Symptoms	No information available.
Effects of Exposure	No information available.
Indication of any immediate medica	al attention and special treatment needed
Note to physicians	Treat symptomatically.
5. Fire-fighting measures	
5. Fire-fighting measures Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Suitable Extinguishing Media Specific hazards arising from the	surrounding environment. No information available.
Suitable Extinguishing Media Specific hazards arising from the chemical Explosion data Sensitivity to mechanical impace	surrounding environment. No information available.
Suitable Extinguishing Media Specific hazards arising from the chemical Explosion data Sensitivity to mechanical impac Sensitivity to static discharge Special protective equipment and	surrounding environment. No information available. t None. None. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
Suitable Extinguishing Media Specific hazards arising from the chemical Explosion data Sensitivity to mechanical impac Sensitivity to static discharge Special protective equipment and precautions for fire-fighters 6. Accidental release measures	surrounding environment. No information available. t None. None. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
Suitable Extinguishing Media Specific hazards arising from the chemical Explosion data Sensitivity to mechanical impac Sensitivity to static discharge Special protective equipment and precautions for fire-fighters 6. Accidental release measures	surrounding environment. No information available. St None. None. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
Suitable Extinguishing Media Specific hazards arising from the chemical Explosion data Sensitivity to mechanical impace Sensitivity to static discharge Special protective equipment and precautions for fire-fighters 6. Accidental release measures Personal precautions, protective equipment	surrounding environment. No information available. Et None. None. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. Ensure adequate ventilation.

Pick up and transfer to properly labeled containers.

7. Handling and storage	
Precautions for safe handling	
Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice.
Conditions for safe storage, includi	ng any incompatibilities
Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.
8. Exposure controls/personal p	protection
<u>Control parameters</u> Exposure Limits	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies
Appropriate engineering controls	
Engineering controls	Showers Eyewash stations Ventilation systems.
Individual protection measures, suc	ch as personal protective equipment
Eye/face protection	No special protective equipment required.
Hand protection	No special protective equipment required.
Skin and body protection	No special protective equipment required.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

#### 9. Physical and chemical properties

Physical state	Liquid	
Appearance	Liquid	
Color	clear colorless	
Odor	Odorless	
Odor threshold	No information available	
Property_	Values_	Remarks • Method
pH	7 - 8.5	None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling rang	eNo data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	

Vapor pressure	No data available
Relative vapor density	No data available
Relative density	No data available
Water solubility	No data available
Solubility(ies)	No data available
Partition coefficient	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available

None known None known None known None known None known None known None known

#### 10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

#### 11. Toxicological information

#### Information on likely routes of exposure

· · · · · ·	
Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.
Symptoms related to the physical, of	chemical and toxicological characteristics
Symptoms	No information available.
Acute toxicity	
Numerical measures of toxicity	
The following values are calculated ATEmix (oral) ATEmix (dermal) ATEmix (inhalation-gas) ATEmix (inhalation-vapor) ATEmix (inhalation-dust/mist)	l based on chapter 3.1 of the GHS document 30,455.90 mg/kg 24,444.40 mg/kg 99,999.00 ppm 99,999.00 mg/l 7.79 mg/l
Delayed and immediate effects as v	vell as chronic effects from short and long-term exposure
Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.

STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

12. Ecological information	
Ecotoxicity	The environmental impact of this product has not been fully investigated.
Persistence and degradability	No information available.
Bioaccumulation	There is no data for this product.
Other adverse effects	No information available.
13. Disposal considerations	
Disposal methods	
Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

#### 14. Transport information

DOT	Not regulated
TDG	Not regulated
MEX	Not regulated
ICAO (air)	Not regulated
	Not regulated
IMDG	Not regulated

#### 15. Regulatory information

#### International Inventories TSCA

Contact supplier for inventory compliance status.

Chemical name	CAS No.	Inventory Listing Status	Commercial Activity Designation
Water	7732-18-5	Present	Active
Glycerol	56-81-5	Present	Active
Trade secret	-	-	Unknown *
Tris base	77-86-1	Present	Active
Polyethylene glycol	25322-68-3	Present	Active
Magnesium chloride	7786-30-3	Present	Active
ATP	56-65-5	Present	Active
Dithiothreitol	3483-12-3	Present	Active

\*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

DSL/NDSL EINECS/ELINCS

Does not comply Does not comply

ENCS	Does not comply
IECSC	Does not comply
KECI	Does not comply
PICCS	Does not comply
AIIC	Does not comply
NZIOC	Does not comply

#### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AIIC - Australian Inventory of Industrial Chemicals

**NZIOC** - New Zealand Inventory of Chemicals

#### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

#### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### <u>CERCLA</u>

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

#### US State Regulations

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

#### U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	Х
Glycerol 56-81-5	Х	Х	Х

#### U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other inform	mation				
NFPA HMIS	Health hazards Health hazards		Flammability 0 Flammability 0	Instability 0 Physical hazards 0	Special hazards  - Personal protection  X
Key or legend to abbreviations and acronyms used in the safety data sheet					

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend	Section 8: Exposure controls/personal protection		
TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	Sk*	Skin designation

Key literature references and sources for data used to compile the SDS Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) **Environmental Protection Agency** Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) National Institute of Technology and Evaluation (NITE) Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's ChemID Plus (NLM CIP) National Library of Medicine's PubMed database (NLM PUBMED) U.S. National Toxicology Program (NTP) New Zealand's Chemical Classification and Information Database (CCID) Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program Organization for Economic Co-operation and Development Screening Information Data Set World Health Organization **Prepared By** PacBio Environment, Health, and Safety 1305 O'Brien Drive Menlo Park, CA 94025

**Revision date** 

**Revision Note** 

te 07-Oct-2024

No information available

USA

safety@pacb.com.

#### Disclaimer

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.Research use only. Not for use in diagnostic procedures. ©2024, Pacific Biosciences of California, Inc. ("PacBio"). All rights reserved. Information in this document is subject to change without notice. PacBio assumes no responsibility for any errors or omissions in this document. Certain notices, terms, conditions and/or use restrictions may pertain to your use of PacBio products and/or third-party products. Refer to the applicable PacBio terms and conditions of sale and to the applicable license terms at pacb.com/license. Pacific Biosciences, the PacBio logo, PacBio, Circulomics, Omniome, SMRT, SMRTbell, Iso-Seq, Sequel, Nanobind, SBB, Revio, Onso, Apton, Kinnex, and PureTarget, are trademarks of PacBio.

**End of Safety Data Sheet** 



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Revision date 07-Oct-2024

#### **Revision Number** 1

1. Identification	
Product identifier	
Product Name	Ligation enhancer M96
Other means of identification	
Product Code(s)	103-286-400
Synonyms	None
Recommended use of the chemical	and restrictions on use
Recommended use	As part of kit
Restrictions on use	For research use only
Details of the supplier of the safety	data sheet
<u>Manufacturer Address</u> PacBio 1305 O'Brien Drive Menlo Park, CA 94025 USA www.pacb.com	
E-mail address	techsupport@pacb.com
Emergency telephone number	
Emergency Telephone	CHEMTREC 1-800-424-9300 (CCN#656805)

#### 2. Hazard(s) identification

#### **Classification**

This product is not considered hazardous by either the US OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Workplace Hazardous Material Information System (WHMIS).

#### Label elements

#### Hazard statements

This product is not considered hazardous by either the US OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Workplace Hazardous Material Information System (WHMIS).

Other information

No information available.

#### 3. Composition/information on ingredients

#### Substance

Not applicable.

#### <u>Mixture</u>

The product contains no substances which at their given concentration, are considered to be hazardous to health.

4. First-aid measures		
Description of first aid measures		
Inhalation	Remove to fresh air.	
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.	
Skin contact	Wash skin with soap and water.	
Ingestion	Rinse mouth.	
••••••		
Most important symptoms and effect	cts, both acute and delayed	
Symptoms	No information available.	
Effects of Exposure	No information available.	
Indication of any immediate medica	I attention and special treatment needed	
Note to physicians	Treat symptomatically.	
5. Fire-fighting measures		
Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.	
Specific hazards arising from the chemical	No information available.	
Explosion data Sensitivity to mechanical impac Sensitivity to static discharge	t None. None.	
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.	
6. Accidental release measures		

# Personal precautions, protective equipment and emergency proceduresPersonal precautionsEnsure adequate ventilation.Methods and material for containment and cleaning upMethods for containmentPrevent further leakage or spillage if safe to do so.Methods for cleaning upPick up and transfer to properly labeled containers.

7. Handling and storage				
Precautions for safe handling				
Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice.			
Conditions for safe storage, includ	ing any incompatibilities			
Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.			
8. Exposure controls/personal	protoction			
6. Exposure controls/personal				
<u>Control parameters</u> Exposure Limits	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies			
Appropriate engineering controls				
Engineering controls	Showers Eyewash stations Ventilation systems.			
Individual protection measures, su	ch as personal protective equipment			
Eye/face protection	No special protective equipment required.			
Hand protection	No special protective equipment required.			
Skin and body protection	No special protective equipment required.			
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.			
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.			

#### 9. Physical and chemical properties

Information on basic physical and chemical properties				
Physical state	Liquid			
Appearance	Liquid			
Color	clear colorless			
Odor	Odorless			
Odor threshold	No information available			
Property_	Values	Remarks • Method		
pH	7 - 8.5	None known		
Melting point / freezing point	No data available	None known		
Initial boiling point and boiling rang	eNo data available	None known		
Flash point	No data available	None known		
Evaporation rate	No data available	None known		
Flammability Limit in Air		None known		
Upper flammability or explosive	No data available			
limits				
Lower flammability or explosive	No data available			
limits				
Vapor pressure	No data available	None known		
• •				

Relative vapor density	No data available	None known	
Relative density	No data available	None known	
Water solubility	No data available	None known	
Solubility(ies)	No data available	None known	
Partition coefficient	No data available	None known	
Autoignition temperature	No data available	None known	
Decomposition temperature	No data available	None known	
10. Stability and reactivity			

Reactivity	No information available.		
Chemical stability	Stable under normal conditions.		
Possibility of hazardous reactions	None under normal processing.		
Conditions to avoid	None known based on information supplied.		
Incompatible materials	None known based on information supplied.		
Hazardous decomposition products None known based on information supplied.			

#### 11. Toxicological information

#### Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.
Symptoms related to the physical, of	chemical and toxicological characteristics
Symptoms	No information available.
Acute toxicity	
Numerical measures of toxicity	
The following values are calculated ATEmix (oral) ATEmix (dermal) ATEmix (inhalation-gas) ATEmix (inhalation-vapor) ATEmix (inhalation-dust/mist)	based on chapter 3.1 of the GHS document           25,200.00         mg/kg           20,000.00         mg/kg           99,999.00         ppm           99,999.00         mg/l           5.50         mg/l
Delayed and immediate effects as v	vell as chronic effects from short and long-term exposure
Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.

STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

# 12. Ecological information Ecotoxicity The environmental impact of this product has not been fully investigated. Persistence and degradability No information available. Bioaccumulation There is no data for this product. Other adverse effects No information available. 13. Disposal considerations Disposal methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

#### 14. Transport information

DOT	Not regulated
TDG	Not regulated
MEX	Not regulated
ICAO (air)	Not regulated
IATA	Not regulated
IMDG_	Not regulated

#### 15. Regulatory information

#### International Inventories TSCA

Contact supplier for inventory compliance status.

Chemical name	CAS No.	Inventory Listing Status	Commercial Activity Designation
Glycerol	56-81-5	Present	Active
Water	7732-18-5	Present	Active
Sodium chloride	7647-14-5	Present	Active
Tris-HCI	1185-53-1	Present	Active
Dithiothreitol	3483-12-3	Present	Active
Ethylenediamine tetraacetic acid	60-00-4	Present	Active

DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECI	Does not comply
PICCS	Complies
AIIC	Complies

#### NZIoC

Complies

Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

AIIC - Australian Inventory of Industrial Chemicals

NZIOC - New Zealand Inventory of Chemicals

#### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

#### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

#### US State Regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals.

#### U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Glycerol	Х	Х	Х
56-81-5			
Water	-	-	Х
7732-18-5			
Ethylenediamine tetraacetic acid	Х	Х	Х
60-00-4			

#### U.S. EPA Label Information

Ceiling

EPA Pesticide Registration Number Not applicable

Maximum limit value

16. Other information					
NFPA HMIS	Health hazards 2 Health hazards 0	Flammability Flammability		Instability 0 Physical hazards 0	Special hazards - Personal protection X
Key or legend to abbreviations and acronyms used in the safety data sheet					
Legend Section 8: Exposure controls/personal protection TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)					

Sk\*

Skin designation

**Key literature references and sources for data used to compile the SDS** Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) Environmental Protection Agency Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) National Institute of Technology and Evaluation (NITE) Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's ChemID Plus (NLM CIP) National Library of Medicine's PubMed database (NLM PUBMED) U.S. National Toxicology Program (NTP) New Zealand's Chemical Classification and Information Database (CCID) Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program Organization for Economic Co-operation and Development Screening Information Data Set World Health Organization

Prepared By	PacBio Environment, Health, and Safety 1305 O'Brien Drive Menlo Park, CA 94025 USA safety@pacb.com.
Revision date	07-Oct-2024

**Revision Note** 

No information available

Disclaimer

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.Research use only. Not for use in diagnostic procedures. ©2024, Pacific Biosciences of California, Inc. ("PacBio"). All rights reserved. Information in this document is subject to change without notice. PacBio assumes no responsibility for any errors or omissions in this document. Certain notices, terms, conditions and/or use restrictions may pertain to your use of PacBio products and/or third-party products. Refer to the applicable PacBio terms and conditions of sale and to the applicable license terms at pacb.com/license. Pacific Biosciences, the PacBio logo, PacBio, Circulomics, Omniome, SMRT, SMRTbell, Iso-Seq, Sequel, Nanobind, SBB, Revio, Onso, Apton, Kinnex, and PureTarget, are trademarks of PacBio.

**End of Safety Data Sheet** 



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Revision date 07-Oct-2024

#### **Revision Number** 1

1. Identification	
Product identifier	
Product Name	Nuclease buffer M96
Other means of identification	
Product Code(s)	103-286-500
Synonyms	None
Recommended use of the chemical	and restrictions on use
Recommended use	As part of kit
Restrictions on use	For research use only
Details of the supplier of the safety of	data sheet
<u>Manufacturer Address</u> PacBio 1305 O'Brien Drive Menlo Park, CA 94025 USA www.pacb.com	
E-mail address	techsupport@pacb.com
Emergency telephone number	
Emergency Telephone	CHEMTREC 1-800-424-9300 (CCN#656805)

# 2. Hazard(s) identification

#### **Classification**

This product is not considered hazardous by either the US OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Workplace Hazardous Material Information System (WHMIS).

#### Label elements

#### Hazard statements

This product is not considered hazardous by either the US OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Workplace Hazardous Material Information System (WHMIS).

Other information No information available. Biological Material Product contains Bovine Serum Albumin (BSA).

# 3. Composition/information on ingredients

#### Substance

## Not applicable.\*\*\*

Methods for cleaning up

#### Mixture \*\*\*

The product contains no substances which at their given concentration, are considered to be hazardous to health.

4. First-aid measures	
Description of first aid measures	
Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water.
Ingestion	Rinse mouth.
Most important symptoms and effe	ects, both acute and delayed
Symptoms	No information available.
Effects of Exposure	No information available.
Indication of any immediate medica	al attention and special treatment needed
Note to physicians	Treat symptomatically.
5. Fire-fighting measures	
Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Specific hazards arising from the	
chemical	No information available.
chemical Explosion data Sensitivity to mechanical impac Sensitivity to static discharge	
Explosion data Sensitivity to mechanical impac	ot None.
Explosion data Sensitivity to mechanical impac Sensitivity to static discharge Special protective equipment and	ct None. None. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
Explosion data Sensitivity to mechanical impac Sensitivity to static discharge Special protective equipment and precautions for fire-fighters 6. Accidental release measures	ct None. None. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
Explosion data Sensitivity to mechanical impac Sensitivity to static discharge Special protective equipment and precautions for fire-fighters 6. Accidental release measures	et None. None. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
<ul> <li>Explosion data Sensitivity to mechanical impact Sensitivity to static discharge</li> <li>Special protective equipment and precautions for fire-fighters</li> <li>6. Accidental release measures</li> <li>Personal precautions, protective equipment</li> </ul>	ct None.         None.         Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.         Use personal protection equipment.         quipment and emergency procedures         Ensure adequate ventilation.

Pick up and transfer to properly labeled containers.

7. Handling and storage			
Precautions for safe handling			
Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice.		
Conditions for safe storage, including any incompatibilities			
Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.		
8. Exposure controls/personal r	protection		
6. Exposure controls/personal			
Control parameters Exposure Limits	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies		
Appropriate engineering controls			
Engineering controls	Showers Eyewash stations Ventilation systems.		
Individual protection measures, such as personal protective equipment			
Eye/face protection	No special protective equipment required.		
Hand protection	No special protective equipment required.		
Skin and body protection	No special protective equipment required.		
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.		
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.		

# 9. Physical and chemical properties

Physical state	Liquid	
Appearance	Liquid	
Color	clear colorless	
Odor	Odorless	
Odor threshold	No information available	
Property_	<u>Values</u>	Remarks • Method
pH	7.5 -*** 8.5	None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling rang	eNo data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	

Vapor pressure	No data available
Relative vapor density	No data available
Relative density	No data available
Water solubility	No data available
Solubility(ies)	No data available
Partition coefficient	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available

None known None known None known None known None known None known None known

# 10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

# 11. Toxicological information

#### Information on likely routes of exposure

· · · · · · · · · · · · · · · ·			
Inhalation	Specific test data for the substance or mixture is not available.		
Eye contact	Specific test data for the substance or mixture is not available.		
Skin contact	Specific test data for the substance or mixture is not available.		
Ingestion	Specific test data for the substance or mixture is not available.		
Symptoms related to the physical, of	chemical and toxicological characteristics		
Symptoms	No information available.		
Acute toxicity			
Numerical measures of toxicity			
The following values are calculated ATEmix (oral) ATEmix (dermal) ATEmix (inhalation-gas) ATEmix (inhalation-vapor) ATEmix (inhalation-dust/mist)	ed based on chapter 3.1 of the GHS document 99,999.00 mg/kg 99,999.00 mg/kg 99,999.00 ppm 99,999.00 mg/l 99,999.00 mg/l		
Delayed and immediate effects as well as chronic effects from short and long-term exposure			
Skin corrosion/irritation	No information available.		
Serious eye damage/eye irritation	No information available.		
Respiratory or skin sensitization	No information available.		
Germ cell mutagenicity	No information available.		
Carcinogenicity	No information available.		
Reproductive toxicity	No information available.		

STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Ecotoxicity	The environmental impact of this product has not been fully investigated.
Persistence and degradability	No information available.
Bioaccumulation	There is no data for this product.
Other adverse effects	No information available.
13. Disposal considerations	
Disposal methods	
Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

# 14. Transport information

12. Ecological information

DOT	Not regulated
TDG	Not regulated
MEX	Not regulated
ICAO (air)	Not regulated
IATA	Not regulated
IMDG_	Not regulated

# 15. Regulatory information International Inventories TSCA

Contact supplier for inventory compliance status.

Chemical name	CAS No.	Inventory Listing Status	Commercial Activity Designation
Water	7732-18-5	Present	Active
Potassium acetate	127-08-2	Present	Active
Tris acetate	6850-28-8	Present	Active
Magnesium acetate	142-72-3	Present	Active
Bovine Serum Albumin	9048-46-8	Present	Active
Dithiothreitol	3483-12-3	Present	Active

DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Does not comply
KECI	Does not comply
PICCS	Complies

AIIC	Does not comply
NZIoC	Complies

Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

AIIC - Australian Inventory of Industrial Chemicals

NZIOC - New Zealand Inventory of Chemicals

#### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

#### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### CERCLA

HMIS

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

#### US State Regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals.

#### U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water	-	-	Х
7732-18-5			

#### U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information	n			
NFPA	Health hazards 0	Flammability 0	Instability	0 Special hazards -

Physical hazards 0

opoolal hasala	
Personal protection	Х

Key or legend to abbreviations and acronyms used in the safety data sheet

Health hazards 0

Legend	Section 8: Exposure controls/personal protection		
TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	Sk*	Skin designation

Flammability 0

#### Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) Environmental Protection Agency Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

U.S. National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Prepared By	PacBio Environment, Health, and Safety 1305 O'Brien Drive Menlo Park, CA 94025 USA safety@pacb.com.
Revision date	07-Oct-2024
Revision Note	No information available

#### **Disclaimer**

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.Research use only. Not for use in diagnostic procedures. ©2024, Pacific Biosciences of California, Inc. ("PacBio"). All rights reserved. Information in this document is subject to change without notice. PacBio assumes no responsibility for any errors or omissions in this document. Certain notices, terms, conditions and/or use restrictions may pertain to your use of PacBio products and/or third-party products. Refer to the applicable PacBio terms and conditions of sale and to the applicable license terms at pacb.com/license. Pacific Biosciences, the PacBio logo, PacBio, Circulomics, Omniome, SMRT, SMRTbell, Iso-Seq, Sequel, Nanobind, SBB, Revio, Onso, Apton, Kinnex, and PureTarget, are trademarks of PacBio.

**End of Safety Data Sheet** 



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Revision date 07-Oct-2024

#### **Revision Number** 1

1. Identification		
Product identifier		
Product Name	Nuclease mix M96	
Other means of identification		
Product Code(s)	103-286-600	
Synonyms	None	
Recommended use of the chemical	and restrictions on use	
Recommended use	As part of kit	
Restrictions on use	For research use only	
Details of the supplier of the safety	data sheet	
Manufacturer Address PacBio 1305 O'Brien Drive Menlo Park, CA 94025 USA www.pacb.com		
E-mail address	techsupport@pacb.com	
Emergency telephone number		
Emergency Telephone	CHEMTREC 1-800-424-9300 (CCN#656805)	

# 2. Hazard(s) identification

#### **Classification**

This product is not considered hazardous by either the US OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Workplace Hazardous Material Information System (WHMIS).

#### Label elements

#### Hazard statements

This product is not considered hazardous by either the US OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Workplace Hazardous Material Information System (WHMIS).

#### Unknown acute toxicity

#### 3. Composition/information on ingredients

#### **Substance**

Not applicable.

#### Mixture

The product contains no substances which at their given concentration, are considered to be hazardous to health.

# 4. First-aid measures Description of first aid measures Inhalation Remove to fresh air. Eve contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. Skin contact Wash skin with soap and water. Ingestion Rinse mouth. Most important symptoms and effects, both acute and delayed Symptoms No information available. Effects of Exposure No information available. Indication of any immediate medical attention and special treatment needed Note to physicians Treat symptomatically. 5. Fire-fighting measures Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Specific hazards arising from the No information available. chemical **Explosion data**

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

#### 6. Accidental release measures

Sensitivity to static discharge

Sensitivity to mechanical impact None.

 Personal precautions, protective equipment and emergency procedures

 Personal precautions
 Ensure adequate ventilation.

 Methods and material for containment and cleaning up
 Prevent further leakage or spillage if safe to do so.

None.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. Handling and storage	
Precautions for safe handling	
Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice.
Conditions for safe storage, includ	ing any incompatibilities
Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.
8. Exposure controls/personal	protection
<u>Control parameters</u> Exposure Limits	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies
Appropriate engineering controls	
Engineering controls	Showers Eyewash stations Ventilation systems.
Individual protection measures, su	ch as personal protective equipment
Eye/face protection	No special protective equipment required.
Hand protection	No special protective equipment required.
Skin and body protection	No special protective equipment required.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

# 9. Physical and chemical properties

Information on basic physical and c	hemical properties
Physical state	Liquid
Appearance	Liquid
Color	clear colorless
Odor	Odorless
Odor threshold	No information available
Property	Values
рН	7 - 8.5
Melting point / freezing point	No data available
Initial boiling point and boiling rang	<b>e</b> No data available
Flash point	No data available
Evaporation rate	No data available
Flammability Limit in Air	
Upper flammability or explosive	No data available
limits	
Lower flammability or explosive	No data available

# Remarks • Method

None known None known None known None known None known None known

limits		
Vapor pressure	No data available	None known
Relative vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known

# 10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	s None known based on information supplied.

# 11. Toxicological information

## Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.	
Eye contact	Specific test data for the substance or mixture is not available.	
Skin contact	Specific test data for the substance or mixture is not available.	
Ingestion	Specific test data for the substance or mixture is not available.	
Symptoms related to the physical, o	chemical and toxicological characteristics	
Symptoms	No information available.	
Acute toxicity		
Numerical measures of toxicity		
The following values are calculated based on chapter 3.1 of the GHS documentATEmix (oral)25,200.00mg/kgATEmix (dermal)20,000.00mg/kgATEmix (inhalation-gas)99,999.00ppmATEmix (inhalation-vapor)99,999.00mg/lATEmix (inhalation-dust/mist)5.50mg/lUnknown acute toxicity5.00mg/l		
Delayed and immediate effects as w	vell as chronic effects from short and long-term exposure	
Skin corrosion/irritation	No information available.	
Serious eye damage/eye irritation	No information available.	
Respiratory or skin sensitization	No information available.	
Germ cell mutagenicity	No information available.	
Carcinogenicity	No information available.	

Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

# 12. Ecological information

Ecotoxicity	The environmental impact of this product has not been fully investigated.
Persistence and degradability	No information available.
Bioaccumulation	There is no data for this product.
Other adverse effects	No information available.
13. Disposal considerations	

#### **Disposal methods**

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

# 14. Transport information

DOT	Not regulated
TDG	Not regulated
MEX	Not regulated
ICAO (air)	Not regulated
IATA	Not regulated
IMDG	Not regulated

#### 15. Regulatory information International Inventories TSCA

Contact supplier for inventory compliance status.

Chemical name	CAS No.	Inventory Listing Status	Commercial Activity Designation
Glycerol	56-81-5	Present	Active
Water	7732-18-5	Present	Active
Water	7732-18-5	Present	Active
Glycerol	56-81-5	Present	Active
Glycerol	56-81-5	Present	Active
Water	7732-18-5	Present	Active
RecJf	-	-	Unknown *
Sodium chloride	7647-14-5	Present	Active
Sodium chloride	7647-14-5	Present	Active
Tris-HCI	1185-53-1	Present	Active
Tris-HCI	1185-53-1	Present	Active
Tris-HCI	1185-53-1	Present	Active

#### 103-286-600 Nuclease mix M96

Chemical name	CAS No.	Inventory Listing Status	Commercial Activity Designation
Dithiothreitol	3483-12-3	Present	Active
Bovine Serum Albumin	9048-46-8	Present	Active
2-mercaptoethanol	60-24-2	Present	Active
Dithiothreitol	3483-12-3	Present	Active
Ethylenediamine tetraacetic acid	60-00-4	Present	Active
Ethylenediamine tetraacetic acid	60-00-4	Present	Active
Bovine Serum Albumin	9048-46-8	Present	Active
Exonuclease I	9037-46-1	-	Unknown *
Ethylenediamine tetraacetic acid	60-00-4	Present	Active
T7 Exonuclease	9012-90-2	Present	Active

\*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECI	Does not comply
PICCS	Does not comply
AIIC	Does not comply
NZIOC	Does not comply

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

AIIC - Australian Inventory of Industrial Chemicals

NZIOC - New Zealand Inventory of Chemicals

#### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

#### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

#### US State Regulations

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

#### U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Glycerol	Х	Х	Х

56-81-5			
Water 7732-18-5	-	-	Х
Water 7732-18-5	-	-	Х
Glycerol 56-81-5	Х	Х	Х
Glycerol 56-81-5	Х	Х	Х
Water 7732-18-5	-	-	Х
2-mercaptoethanol 60-24-2	Х	Х	Х
Ethylenediamine tetraacetic acid 60-00-4	Х	Х	Х
Ethylenediamine tetraacetic acid 60-00-4	Х	Х	Х
Ethylenediamine tetraacetic acid 60-00-4	Х	Х	Х

U.S. EPA Label Information EPA Pesticide Registration Number Not applicable

16. Other informat	tion				
NFPA HMIS	Health hazards 2 Health hazards 0	Flammability Flammability		Instability 0 Physical hazards 0	Special hazards - Personal protection X
Key or legend to abl	previations and acronyms u	sed in the safe	ty data s	heet	
TWA TV	xposure controls/personal pro WA (time-weighted average) aximum limit value	S	STEL Sk*	STEL (Short Te Skin designatio	erm Exposure Limit) n
Agency for Toxic Sub U.S. Environmental P European Food Safet Environmental Protect Acute Exposure Guid U.S. Environmental P U.S. Environmental P Food Research Journ Hazardous Substance International Uniform National Institute of T Australia National Ind NIOSH (National Instit National Library of Me U.S. National Toxicolo New Zealand's Chem Organization for Ecor	tion Agency eline Level(s) (AEGL(s)) rotection Agency Federal Inse rotection Agency High Product al e Database Chemical Information Databa echnology and Evaluation (NI ustrial Chemicals Notification tute for Occupational Safety a edicine's ChemID Plus (NLM ( edicine's PubMed database (N ogy Program (NTP) ical Classification and Information to co-operation and Deve tomic Co-operation and Deve tomic Co-operation and Deve	y (ATSDR) Database ecticide, Fungicio ction Volume Ch se (IUCLID) TE) and Assessmen and Health) CIP) NLM PUBMED) ation Database ( lopment Environ lopment High Pr	de, and R emicals nt Scheme CCID) ment, He oduction	odenticide Act (NICNAS) alth, and Safety Publicat Volume Chemicals Progr	
Prepared By	PacBio Environmer	nt, Health, and S	afety		

Environment, Health, and Safety 1305 O'Brien Drive Menlo Park, CA 94025 USA safety@pacb.com.

**Revision date** 

07-Oct-2024

**Revision Note** 

No information available

**Disclaimer** 

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.Research use only. Not for use in diagnostic procedures. ©2024, Pacific Biosciences of California, Inc. ("PacBio"). All rights reserved. Information in this document is subject to change without notice. PacBio assumes no responsibility for any errors or omissions in this document. Certain notices, terms, conditions and/or use restrictions may pertain to your use of PacBio products and/or third-party products. Refer to the applicable PacBio terms and conditions of sale and to the applicable license terms at pacb.com/license. Pacific Biosciences, the PacBio logo, PacBio, Circulomics, Omniome, SMRT, SMRTbell, Iso-Seq, Sequel, Nanobind, SBB, Revio, Onso, Apton, Kinnex, and PureTarget, are trademarks of PacBio.

End of Safety Data Sheet



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Revision date 28-Feb-2024

#### Revision Number 1

1. Identification	
Product identifier	
Product Name	Stop solution M96
Other means of identification	
Product Code(s)	103-302-200
Synonyms	None
Recommended use of the chemical	and restrictions on use
Recommended use	As part of kit
Restrictions on use	For research use only
Details of the supplier of the safety	data sheet
Manufacturer Address PacBio 1305 O'Brien Drive Menlo Park, CA 94025 USA www.pacb.com	
E-mail address	techsupport@pacb.com
Emergency telephone number	
Emergency Telephone	CHEMTREC 1-800-424-9300 (CCN#656805)

# 2. Hazard(s) identification

#### **Classification**

This product is not considered hazardous by either the US OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Workplace Hazardous Material Information System (WHMIS).

#### Label elements

#### Hazard statements

This product is not considered hazardous by either the US OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Workplace Hazardous Material Information System (WHMIS).

#### Other information

Harmful to aquatic life with long lasting effects.

# 3. Composition/information on ingredients

#### Substance

Not applicable.

# <u>Mixture</u>

Chemical name	CAS No.	Weight-%	Information Review	Date HMIRA filed and date exemption granted (if applicable)
Water	7732-18-5	90 - 100%	-	-
Ethylenediamine tetraacetic acid	60-00-4	0 - 10%	-	-

# 4. First-aid measures

## **Description of first aid measures**

Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water.
Ingestion	Rinse mouth.
Most important symptoms and effe	cts, both acute and delayed
Symptoms	No information available.
Effects of Exposure	No information available.
Indication of any immediate medica	al attention and special treatment needed
Note to physicians	Treat symptomatically.
5. Fire-fighting measures	
Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Specific hazards arising from the chemical	No information available.
Explosion data Sensitivity to mechanical impac Sensitivity to static discharge	t None. None.
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
C. Assidental valesse messures	

#### 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

**Personal precautions** 

Ensure adequate ventilation.

Methods and material for containment and cleaning up

# Prevent further leakage or spillage if safe to do so. Methods for containment Methods for cleaning up Pick up and transfer to properly labeled containers. 7. Handling and storage Precautions for safe handling Handle in accordance with good industrial hygiene and safety practice. Advice on safe handling Conditions for safe storage, including any incompatibilities **Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. 8. Exposure controls/personal protection Control parameters This product, as supplied, does not contain any hazardous materials with occupational **Exposure Limits** exposure limits established by the region specific regulatory bodies Appropriate engineering controls **Engineering controls** Showers Eyewash stations Ventilation systems. Individual protection measures, such as personal protective equipment Eye/face protection No special protective equipment required. Hand protection No special protective equipment required. No special protective equipment required. Skin and body protection No protective equipment is needed under normal use conditions. If exposure limits are **Respiratory protection** exceeded or irritation is experienced, ventilation and evacuation may be required. **General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

#### 9. Physical and chemical properties

Information on basic physical and chemical properties			
Physical state	Liquid		
Appearance	Liquid		
Color	clear colorless		
Odor	Odorless		
Odor threshold	No information available		

Property<br/>pHValuespH7.5-8.5Melting point / freezing pointNo data availableInitial boiling point and boiling rangeNo data availableFlash pointNo data availableNo data available

Remarks • Method None known None known None known None known

Evaporation rate Flammability Limit in Air	No data available	None known None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	None known
Relative vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known

# 10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

## 11. Toxicological information

#### Information on likely routes of exposure

available.
available.
available.
available.

#### Symptoms related to the physical, chemical and toxicological characteristics

Symptoms

No information available.

#### Acute toxicity

#### Numerical measures of toxicity

#### The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	54,749.50	mg/kg
ATEmix (dermal)	99,999.00	mg/kg
ATEmix (inhalation-gas)	99,999.00	ppm
ATEmix (inhalation-vapor)	99,999.00	mg/l
ATEmix (inhalation-dust/mist)	99,999.00	mg/l
Component Information		

# Chemical nameOral LD50Dermal LD50Inhalation LC50Water<br/>7732-18-5> 90 mL/kg ( Rat )--Ethylenediamine tetraacetic acid<br/>60-00-4> 2000 mg/kg ( Rat )--

## Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

# 12. Ecological information

Ecotoxicity	Harmful to ac	uatic life with long lasting e	ffects.		
Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea	
Ethylenediamine tetraacetic acid 60-00-4	EC50: =1.01mg/L (72h, Desmodesmus subspicatus)	LC50: 34 - 62mg/L (96h, Lepomis macrochirus) LC50: 44.2 - 76.5mg/L (96h, Pimephales promelas)	-	EC50: =113mg/L (48h, Daphnia magna)	
Persistence and degradal	bility No informatio	n available.			
Bioaccumulation	There is no d	ata for this product.			
Other adverse effects	No informatio	n available.			
13. Disposal considera	itions				
Disposal methods					
Waste from residues/unu products	Vaste from residues/unusedDispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.				
Contaminated packaging	Do not reuse empty containers.				
14. Transport informat	ion				
DOT	Not regulated	i			
TDG	Not regulated				
MEX	Not regulated	Not regulated			
ICAO (air)	Not regulated	Not regulated			
IATA	Not regulated	1			
IMDG_	Not regulated	i			
15 Pogulatory informa	tion				

# 15. Regulatory information

#### International Inventories TSCA

Contact supplier for inventory compliance status.

Chemical name	CAS No.	Inventory Listing Status	Commercial Activity Designation
Water	7732-18-5	Present	Active
Ethylenediamine tetraacetic acid	60-00-4	Present	Active

DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECI	Complies
PICCS	Complies
AIIC	Complies
NZIOC	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

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KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

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#### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

#### CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ethylenediamine tetraacetic acid 60-00-4	5000 lb	-	-	Х

#### **CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	Reportable Quantity (RQ)		
Ethylenediamine tetraacetic acid 60-00-4	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ		

# US State Regulations

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

#### U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania	
Water -		-	Х	

7732-18-5			
Ethylenediamine tetraacetic acid	Х	X	X
60-00-4			

#### U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information							
NFPA HMIS	Health hazar Health hazar		Flammability Flammability		Instability 0 Physical hazards	0	Special hazards - Personal protection X
Key or legend	to abbreviations and a	cronyms ι	used in the safe	ty data sh	eet		
TWA Ceiling Agency for To U.S. Environm European Foo Environmenta Acute Exposu U.S. Environm U.S. Environm U.S. Environm Food Researc Hazardous Su International L National Institu Australia Natio NIOSH (Nation National Libra U.S. National New Zealand's Organization f	bstance Database Iniform Chemical Informa ute of Technology and Ev- onal Industrial Chemicals nal Institute for Occupation ry of Medicine's ChemID ry of Medicine's PubMed Toxicology Program (NTF s Chemical Classification or Economic Co-operation or Economic Co-operation or Economic Co-operation or Economic Co-operation or Economic Co-operation	d average) <b>s for data</b> ( ase Registr ChemView ) GL(s)) Federal Ins High Produ tion Databa aluation (N Notification nal Safety ( Plus (NLM database (1 P) and Inform n and Deve n and Deve	used to compile y (ATSDR) Database ecticide, Fungici ction Volume Ch ase (IUCLID) ITE) and Assessmer and Health) CIP) NLM PUBMED) ation Database ( elopment Enviror elopment High Pu	de, and Ro nemicals nt Scheme (CCID) nent, Hea roduction \	Skin designa odenticide Act (NICNAS) alth, and Safety Public /olume Chemicals Pro	ation	
Prepared By		1305 O'Bri	k, CA 94025	Safety			
Revision date	)	28-Feb-202	24				
Revision Note	9	No informa	tion available				
Disclaimer	formation is balloured to	ha aarraa	t but dooo not n	urnort to	he all inclusive and	chell	

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.Research use only. Not for use in diagnostic procedures. ©2024, Pacific Biosciences of California, Inc. ("PacBio"). All rights reserved. Information in this document is subject to change without notice. PacBio assumes no responsibility for any errors or omissions in this document. Certain notices, terms, conditions and/or use restrictions may pertain to your use of PacBio products and/or third-party products. Refer to the applicable PacBio terms and conditions of sale and to the applicable license terms at pacb.com/license. Pacific Biosciences, the PacBio logo, PacBio, Circulomics, Omniome, SMRT, SMRTbell, Iso-Seq, Sequel, Nanobind, SBB, Revio, Onso, Apton, Kinnex, and PureTarget, are trademarks of PacBio. End of Safety Data Sheet