

# 14 July 2021

**Kit Components** 

Product Code	Description	
14000-1, 14000-2	NxSeq™ AmpFREE Low DNA Library Kit	

# Components

Enzyme Mix	F833397-4, F833397-7
2X Buffer	F883396-4, F883396-7
Ligase	F832792-4, F832792-7
Elution Buffer	F882705-6, F882705-7



# Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: 08/02/2021 Version: B



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

### 1.1. Product identifier

Product name	:	Enzyme Mix
Product form	:	Mixture
Product code	:	F833397-4, F833397-7

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

Use of the substance/mixture

: Laboratory chemical.

### 1.3. Details of the supplier of the safety data sheet

Lucigen Corp. Legal entity of LGC, Biosearch Technologies 2905 Parmenter Street Middleton, WI 53562 U.S.A. Phone: (608) 831-9011 Fax: (608) 831-9012 E-mail: techsupport@LGCGroup.com

### 1.4. Emergency telephone number

Emergencynumber

: 1-888-575-9695 (Biosearch Technologies: Monday-Friday, 8:00AM-5:00PM)

### SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

### **GHS-US** classification

Not classified.

### 2.2. Label elements

### GHS-US labelling

No labeling applicable.

### 2.3. Other hazards

None.

### 2.4. Unknown acute toxicity (GHS-US)

No data available.

### **SECTION 3: Composition/information on ingredients**

### 3.2. Mixture

Name	Product identifier	%
Glycerol, CAS # 56-81-5 EC# 200-289-5 Chemical Formula: $C_3H_8O_3$ Molecular Weight: 92.09 g/mol Synonyms: 1,2,3-Propanetriol, Glycerin	Ingredient in product.	50%

### SECTION 4: First aid measures

4.1. Description of first aid measures	
First-aid measures general	: If exposed or concerned, consult a physician. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.
First-aid measures after inhalation	: IF INHALED: Remove to fresh air and keep at rest in a comfortable position for breathing. If not breathing, give artificial respiration. Consult a physician.
First-aid measures after skin contact	: IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin for at least 15 minutes with tepid water. Consult a physician.
First-aid measures after eye contact	: IF IN EYES: Immediately flush with plenty of tepid water for at least 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing. Consult a physician.
First-aid measures after ingestion	: IF SWALLOWED: Rinse mouth thoroughly and consult a physician. Do not induce vomiting.



Enzyme Mix. Safety Data Sheet Prepared according to Federal Register / Vol. 77, No.	58 / Monday, March 26, 2012 / Rules and Regulations
<ul> <li>4.2. Most important symptoms and eff Symptoms/injuries</li> <li>Symptoms/injuries after inhalation</li> <li>Symptoms/injuries after skin contact</li> <li>Symptoms/injuries after eye contact</li> <li>Symptoms/injuries after ingestion</li> <li>4.3. Indication of any immediate mediation</li> <li>No additional information available</li> </ul>	<ul> <li>ects, both acute and delayed</li> <li>Not expected to present a significant acute hazard under anticipated conditions of normal use</li> <li>May cause upper respiratory irratation.</li> <li>Direct contact will cause skin irritation.</li> <li>Direct contact will cause eye irritation.</li> <li>Will cause gastrointestinal irritation.</li> </ul>
SECTION 5: Firefighting measures	
5.1. Extinguishing media Suitable extinguishing media	: Water spray, alcohol resistant foam, dry chemical, carbon dioxide, or appropriate foam.
5.2. Special hazards arising from the s Fire hazard Explosion hazard Reactivity	<ul> <li>substance or mixture</li> <li>Emits toxic fumes under fire conditions.</li> <li>Emits toxic fumes under fire conditions.</li> <li>No dangerous reactions known under normal conditions of use.</li> </ul>
5.3. Advice for firefighters Firefighting instructions Protection during firefighting	<ul> <li>Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.</li> <li>Do not enter fire area without proper protective equipment, including respiratory protection.</li> </ul>
SECTION 6: Accidental release me	
6.1. Personal precautions, protective	equipment and emergency procedures
Generalmeasures	: Ventilate area. Evacuate area. Keep upwind. Spill should be handled by trained clean-up crew properly equipped with respiratory equipment and full chemical protective gear (see Section 8)
6.1.1. For non-emergency personnel Protective equipment	: Wear Personal Protective Equipment as described in Section 8.
6.1.2. For emergency responders Protective equipment	: Wear suitable protective clothing, gloves, respirator, and eye or face protection. For further information refer to section 8: "Exposure controls/personal protection".
6.2. Environmental precautions Prevent entry to sewers and public waters. No	tify authorities if liquid enters sewers or public waters. Avoid release to the environment.
6.3. Methods and material for contain	nent and cleaning up
For containment	: Contain any spills with dikes or inert absorbents (e.g., sand or vermiculite) to prevent migration and entry into sewers or streams.
Methods for cleaning up	: Soak up spills with inert absorbants, such as sand or vermiculite as soon as possible. Place in closed waste container for disposal. This material and its container must be disposed of in a safe way, and as per local, state, and federal legislation.

### 6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling	: Do not handle until all safety precautions have been read and understood. Wear recommended personal protective equipment. Wash hands and other exposed areas with mild soap and water after handling material, leaving the laboratory, before eating, drinking or smoking and when leaving work.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

: Store in a -20°C freezer without a defrost cycle.



### Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### **SECTION 8: Exposure controls/personal protection**

### 8.1. **Control parameters**

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Glycerol	56-81-5	TWA	10 mg/m3	USA. OSHA – TABLE Z-1 Limits for Air Contaminants – 1910.1000
		TWA	10 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Upper Respir	ratory Tract Irritation	
		TWA	5 mg/m3	USA. Occupational Exposure Limits (OSHA) – Table Z-1 Limits for Air Contaminants
		TWA	15 mg/m3	USA. Occupational Exposure Limits (OSHA) – Table Z-1 Limits for Air Contaminants

### 8.2. **Exposure controls**

Appropriate engineering controls

Personal protective equipment

: Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Ensure adequate ventilation, especially in confined areas. Emergency safety shower and eye wash station should be available. Avoid prolonged or repeated exposure. : Gloves. Protective goggles. Laboratory Coat.



Hand protection

- Eye protection Skin and body protection Respiratory protection
- : Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suitable gloves for this specific application can be recommended by the glove supplier. Suggested glove materials are: Neoprene, Nitrile.
- : Safety goggles should be worn when working with mixture. Avoid direct contact with eyes.
- : Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.
- Use NIOSH/MSHA-approved dust/particulate respirator if exposure symptoms develop. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment. Do not breathe in vapour, mist, or dust.

### SECTION 9: Physical and chemical properties

SECTION 9: Physical and chemical properties		
9.1. Information on basic physical a	nd cher	nical properties
Physical state	:	Liquid
Color	:	No data available
Odor	:	No data available
Odor Threshold	:	No data available
рН	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Relative evaporation rate	:	No data available
Flammability (solid, gas)	1	No data available
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility in Water	1	No data available
Log Pow	:	No data available
Log Kow	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Page 3 of 6		



### Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

### 9.2. Other information

No additional information.

### **SECTION 10:** Stability and reactivity

### 10.1. Reactivity

No dangerous reactions known under normal conditions of use.

### 10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

### 10.3. Possibility of hazardous reactions

None known. Hazardous polymerization does not occur.

### 10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

Strong oxidizing agents, strong bases.

### 10.6. Hazardous decomposition products

Carbon oxides.

### **SECTION 11: Toxicological information**

### 11.1. Information on toxicological effects

Acute toxicity	:	No data available
Skin corrosion/irritation	:	No data available
Serious eye damage/irritation	:	No data available
Respiratory or skin sensitisation	:	No data available
Germ cell mutagenicity	:	No data available
Carcinogenicity	:	IARC – No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.
		ACGIH – No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
		NTP – No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
		OSHA – No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity	:	No data available
Specific target organ toxicity (single exposure)	:	No data available
Specific target organ toxicity (repeated exposure)	:	No data available
Aspiration hazard	:	No data available
Symptoms/injuries after inhalation	:	May cause upper respiratory irratation. May cause headaches.
Symptoms/injuries after skin contact	:	Direct contact with skin will cause skin irritation.
Symptoms/injuries after eye contact	:	Direct contact will cause eye irritation.
Symptoms/injuries after ingestion	:	Will cause gastrointestinal distress.
Additional Information	:	The chemical, physical, and toxicological properties have not been thoroughly investigated. Repeated or prolonged exposure may cause headache, vomitting, and nausea. May cause kidney irregularities (based on human evidence).

### **SECTION 12: Ecological information**

12.1. Toxicity

No additional information available



### Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

No additional information available

SECTION 13: Disposal consider	ations
13.1. Waste treatment methods	
Waste treatment methods	: Obtain the consent of pollution control authorities before discharging to wastewater treatment plants. Product should not be discharged to surface waters without a NPDES permit.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local, state, and federal regulations. Avoid release to the environment.
SECTION 14: Transport informa	tion
In accordance with DOT	
Not be zerde up for trepenent	

Not hazardous for transport Additional information

: No supplementary information available.

### Transport by sea

No additional information available

### Air transport

No additional information available

### **SECTION 15: Regulatory information**

### 15.1. US Federal regulations

### SARA 302 Components

No chemicals in this solution are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 311/312 Hazards

Chronic Health Hazard

### **SARA 313**

This materials does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### 15.2. International regulations

None.

### 15.3. US State regulations

### California Proposition 65

This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm.

### Massachusetts Right To Know Components Glycerol, CAS 56-81-5

New Jersey Right to Know Hazardous Substance List Glycerol, CAS 56-81-5

### Pennsylvania Right to Know List Glycerol, CAS 56-81-5

### **SECTION 16: Other information**

Indication of changes

: Revision B: Update branding.



Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date	: 08/02/2021
Otherinformation	: Author: Biosearch Technologies
NFPA health hazard	: 0 – Poses no health hazard, no precautions necessary and would offer no hazard beyond that of ordinary combustible materials.
NFPA fire hazard	: 1 – Materials that require considerable preheating, under all ambient temperature condtision, before ignition and combustion can occur. Flash point at or above 93.3 °C.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
HMIS III Rating	
Health	: 0
Flammability	: 1
Physical Hazard	: 0
Personal Protection	:

This information is disclosed to the best of Biosearch Technologies' knowledge. This document does not constitute a contractual relation ship with product end users or handlers with respect to the possible presence of hazards in this item. Disposal should be in accordance with applicable regional, national and local laws and regulations.

LG

# Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: 10/14/2021 Version: C



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

### 1.1. Product identifier

Product name	:	2X Buffer
Product form	:	Mixture
Product code	:	F883396-4, F883396-5

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

Use of the substance/mixture

: Laboratory chemical.

### 1.3. Details of the supplier of the safety data sheet

Lucigen Corp. Legal entity of LGC, Biosearch Technologies 2905 Parmenter Street Middleton, WI 53562 U.S.A. Phone: (608) 831-9011 Fax: (608) 831-9012 E-mail: techsupport@LGCGroup.com

### 1.4. Emergency telephone number

Emergency number

: 1-888-575-9695 (Biosearch Technologies: Monday-Friday, 8:00AM-5:00PM)

### SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

### **GHS-US** classification

Not classified.

### 2.2. Label elements

### GHS-US labelling

No labelling applicable.

### 2.3. Other hazards

None.

2.4. Unknown acute toxicity (GHS-US)

No data available.

### **SECTION 3: Composition/information on ingredients**

### 3.2. Mixture

Name	Product identifier	%
Tris HCI, CAS # 1185-53-1 EC# 214-684-5 Chemical Formula: C <sub>4</sub> H <sub>11</sub> NO <sub>3</sub> *HCI Molecular Weight: 157.60 g/mol Synonyms: Tris hydrochloride, Tris (hydroxymethl)aminomethanehydrochloride, 2-Amino-2- (hydroxymethyl)propane-1,3-diol hydrochloride	Ingredient in product.	1.6
PEG 8000, CAS #25322-68-3 EC# 500-038-2 Chemical Formula: H(OCH <sub>2</sub> CH <sub>2</sub> ) <sub>n</sub> OH Synonyms: Polyethylene Glycol, Poly(ethylene gly∞l)	Ingredient in product.	15

### **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

4.1. Description of first ald measures	
First-aid measures general	: If exposed or concerned, consult a physician. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.
First-aid measures after inhalation	: IF INHALED: Remove to fresh air and keep at rest in a comfortable position for breathing. If not breathing, give artificial respiration. Consult a physician.
First-aid measures after skin contact	: IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin for at least 15 minutes with tepid water. Consult a physician.



First-aid measures after eye contact	: IF IN EYES: Immediately flush with plenty of tepid water for at least 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing. Consult a physician.
First-aid measures after ingestion	: IF SWALLOWED: Rinse mouth thoroughly and consult a physician. Do not induce vomiting.
4.2. Most important symptoms	and effects, both acute and delayed
Symptoms/injuries	: Not expected to present a significant acute hazard under anticipated conditions of normal use
Symptoms/injuries after inhalation	: May cause upper respiratory irratation, coughing, shortness of breath. May cause an allergic reaction in sensitive individuals.
Symptoms/injuries after skin contact	: May cause mild irritation to skin, may cause dryness and rash upon continued exposure.
Symptoms/injuries after eye contact	: May cause irritation, redness, and pain.
Symptoms/injuries after ingestion	: Large doses may cause gastrointestinal distress, nausea, and diarrhea.

No additional information.

SECTION 5: Firefighting measu	Ires			
5.1. Extinguishing media				
Suitable extinguishing media	: Water spray, carbon dioxide, dry chemical powder, alcohol-resistant foam, or appropriate foam.			
5.2. Special hazards arising from	the substance or mixture			
Fire hazard	: Emits toxic fumes under fire conditions.			
Explosion hazard	: Emits toxic fumes under fire conditions.			
Reactivity	: Can react with oxidizing agents.			
5.3. Advice for firefighters				
Firefighting instructions	: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.			
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.			
SECTION 6: Accidental release	measures			
6.1. Personal precautions, protect	tive equipment and emergency procedures			
General measures	: Ventilate area. Evacuate area. Keep upwind. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).			
6.1.1. For non-emergency personne	1			
Protective equipment	: Wear Personal Protective Equipment as described in Section 8.			
6.1.2. For emergency responders				
Protective equipment	: Wear suitable protective clothing, gloves, respirator, and eye or face protection. For further information refer to section 8: "Exposure controls/personal protection".			
6.2. Environmental precautions				
Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.				
6.3. Methods and material for cont				
For containment	: Contain any spills with dikes or inert absorbents (e.g., sand or vermiculite) to prevent migration and entry into sewers or streams.			
Methods for cleaning up	: Soak up spills with inert absorbants, such as sand or vermiculite as soon as possible. Place in closed waste container for disposal. This material and its container must be disposed of in a safe way, and as per local, state, and federal legislation.			
6.4. Reference to other sections				
No additional information available				
SECTION 7: Handling and stora	age			
7.1. Precautions for safe handling				

7.1. Precautions for	safe nandling
Precautions for safe hand	ing : Do not handle until all safety precautions have been read and understood. Wear recommended personal protective equipment. Wash hands and other exposed are as with mild soap and water after handling material, leaving the laboratory, before eating, drinking or smoking and when leaving work.
7.2. Conditions for	afe storage, including any incompatibilities

### s for safe storage, including any incompa

Storage conditions : Store in a -20°C freezer without a defrost cycle.

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Component	CAS-No.	Value	Control parameters	Basis
PEG 8000	25322-68-3	TWA	10.000000 mg/m3	USA. Workplace Environmental Exposure Levels (WEEL)
		TWA	10.000000 mg/m3	USA. Workplace Environmental Exposure Levels (WEEL)

### 8.2. Exposure controls

Appropriate engineering controls

Personal protective equipment

- : Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Ensure adequate ventilation, especially in confined areas. Emergency safety shower and eye wash station should be available. Avoid prolonged or repeated exposure.
- : Gloves. Protective goggles. Laboratory Coat.



Hand protection

Eye protection Skin and body protection Respiratory protection

# : Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suitable gloves for this specific application can be recommended by the glove supplier. Suggested glove materials are: Neoprene, Nitrile.

- : Safety goggles should be worn when working with mixture. Avoid direct contact with eyes.
- : Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.
- : Use NIOSH/MSHA-approved dust/particulate respirator if exposure symptoms develop. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment. Do not breathe in vapour, mist, or dust.

### **SECTION 9: Physical and chemical properties**

9.1. Information on basic physical a	nd chemical properties
Physical state	: Liquid, either white and cloudy or colorless
Color	: Colorless or white and cloudy
Odor	: No data available
Odor Threshold	: No data available
рН	: No data available
Melting point	: No data available
Freezing point (50% aquesous solution)	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility in Water	: No data available
Log Pow	: No data available
Log Kow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 9.2. Other information

None.

### **SECTION 10: Stability and reactivity**

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

### 10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

### 10.3. Possibility of hazardous reactions

None known. Hazardous plymerization does not occur.

### 10.4. Conditions to avoid

Moisture.

10.5. Incompatible materials

Strong oxidizing agents, bases.

### 10.6. Hazardous decomposition products

Carbon monoxide, carbon dioxide.

### **SECTION 11: Toxicological information**

### 11.1. Information on toxicological effects

Acute toxicity	No data available	
Skin corrosion/irritation	: No data available	
Serious eye damage/irritation	: No data available	
Respiratory or skin sensitisation	: No data available	
Germ cell mutagenicity	: No data available	
Carcinogenicity	: IARC – No component of this product present at levels greater than or equal to 0.1% is dientified as probablye, possible, or confirmed human carcinogen by IARC.	
	ACGIH – No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.	
	NTP – No component of this product present at levels greater than or equal to 0.1% is iden as a known or anticpated carcinogen by NTP.	tified
	OSHA – No component of this product present at levels greater than or equal to 0.1% is identified as a carcinoen or potential carcinogen by OSHA.	
Reproductive toxicity	: No data available	
Specific target organ toxicity (single exposure)	: No data available	
Specific target organ toxicity (repeated exposure)	: No data available	
Aspiration hazard	: No data available	
Symptoms/injuries after inhalation	: May cause upper respiratory irratation, coughing, shortness of breath. May cause an allergin reaction in sensitive individuals.	С
Symptoms/injuries after skin contact	: May cause mild irritation to skin, may cause dryness and rash upon continued exposure.	
Symptoms/injuries after eye contact	: May cause irritation, redness, and pain.	
Symptoms/injuries after ingestion	: Large doses may cause gastrointestinal distress, nausea, and diarrhea.	
Additional Information	No additional information available.	

### **SECTION 12: Ecological information**

### 12.1. Toxicity

No additional information available

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available Page 4 of  ${\bf 6}$ 



Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations	
13.1. Waste treatment methods	
Waste treatment methods	: Obtain the consent of pollution control authorities before discharging to wastewater treatment plants. Product should not be discharged to surface waters without a NPDES permit.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local, state, and federal regulations. Avoid release to the environment.

### **SECTION 14: Transport information**

DOT

Not dangerous goods

# IMDG

Not dangerous goods

### ΙΑΤΑ

Not dangerous goods

### **SECTION 15: Regulatory information**

### 15.1. US Federal regulations

### SARA 304 Extremely Hazardous Substances Reportable Quantity

This product does not contain any components with a section 304 EHS RQ.

### SARA 311/312 Hazards

No SARA Hazards

### SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 313

This materials does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### 15.2. International regulations.

None.

### 15.3. US State regulations

### **California Proposition 65**

This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm.

### Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

### New Jersey Right to Know Hazardous Substance List

2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride, CAS 1185-53-1 PEG 8000, CAS 25322-68-3

### Pennsylvania Right to Know List

2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride, CAS 1185-53-1 PEG 8000, CAS 25322-68-3

### SECTION 16: Other information

Indication of changes	: Revision C: Updated branding.
Revision date	: 10/14/2021
Otherinformation	: Author: Biosearch Technologies



Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

NFPA health hazard	: 0 – Poses no health hazard, no precaustions necessary and would offer no hazard beyond that of ordinary combustible materials.
NFPA fire hazard	: 0 – Material that will not bum under typical fire conditions, including intrinsically noncombustibel materials such as concrete, stone and sand.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
HMIS III Rating	
Health	: 0
Flammability	: 0
Physical Hazard	: 0
Personal Protection	:

This information is disclosed to the best of Biosearch Technologies' knowledge. This document does not constitute a contractual relationship with product end users or handlers with respect to the possible presence of hazards in this item. Disposal should be in accordance with applicable regional, national and local laws and regulations.

LG

# Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: 08/02/2021 Version: D



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

### 1.1. Product identifier

Product name	: Ligase
Product form	: Mixture
Product code	: F832792-2, F832792-4, F832792-7

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

Use of the substance/mixture

: Laboratory chemical.

### 1.3. Details of the supplier of the safety data sheet

Lucigen Corp. Legal entity of LGC, Biosearch Technologies

2905 Parmenter Street Middleton, WI 53562 U.S.A. Phone: (608) 831-9011 Fax: (608) 831-9012 E-mail: techsupport@LGCGroup.com

### 1.4. Emergency telephone number

Emergency number

: 1-888-575-9695 (Biosearch Technologies: Monday-Friday, 8:00AM-5:00PM)

### **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

**GHS-US** classification

Not classified.

### 2.2. Label elements

### GHS-US labelling

No labeling applicable.

### 2.3. Other hazards

None.

### 2.4. Unknown acute toxicity (GHS-US)

No data available.

### **SECTION 3: Composition/information on ingredients**

### 3.2. Mixture

Name	Product identifier	%
Glycerol, CAS # 56-81-5 EC# 200-289-5 Chemical Formula: $C_3H_8O_3$ Molecular Weight: 92.09 g/mol Synonyms: 1,2,3-Propanetriol, Glycerin	Ingredient in product.	50%

### **SECTION 4: First aid measures**

4.1.	Description of first aid measures		
First-ai	id measures general	: If exposed or concerned, consult a physician. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.	
First-ai	d measures after inhalation	: IF INHALED: Remove to fresh air and keep at rest in a comfortable position for breathing. If not breathing, give artificial respiration. Consult a physician.	
First-ai	d measures after skin contact	: IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin for at least 15 minutes with tepid water. Consult a physician.	
First-ai	d measures after eye contact	: IF IN EYES: Immediately flush with plenty of tepid water for at least 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing. Consult a physician.	
First-ai	id measures after ingestion	: IF SWALLOWED: Rinse mouth thoroughly and consult a physician. Do not induce vomiting.	



Ligase. Safety Data Sheet Prepared according to Federal Register / Vol. 77, N	No. 58 / Monday, March 26, 2012 / Rules and Regulations
4.2. Most important symptoms and Symptoms/injuries Symptoms/injuries after inhalation Symptoms/injuries after skin contact Symptoms/injuries after eye contact Symptoms/injuries after ingestion	<ul> <li>effects, both acute and delayed</li> <li>Not expected to present a significant acute hazard under anticipated conditions of normal use.</li> <li>May cause upper respiratory irratation.</li> <li>Direct contact will cause skin irritation.</li> <li>Direct contact will cause eye irritation.</li> <li>Will cause gastrointestinal irritation.</li> </ul>
<b>4.3.</b> Indication of any immediate me No additional information available	edical attention and special treatment needed
SECTION 5: Firefighting measure	res
<ul><li>5.1. Extinguishing media</li><li>Suitable extinguishing media</li><li>5.2. Special hazards arising from the</li></ul>	: Water spray, alcohol resistant foam, dry chemical, carbon dioxide, or appropriate foam.
Fire hazard Explosion hazard Reactivity	<ul> <li>Emits toxic fumes under fire conditions.</li> <li>Emits toxic fumes under fire conditions.</li> <li>No dangerous reactions known under normal conditions of use.</li> </ul>
<b>5.3.</b> Advice for firefighters Firefighting instructions	: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
SECTION 6: Accidental release	
6.1. Personal precautions, protectiv General measures	<ul> <li>ve equipment and emergency procedures</li> <li>Ventilate area. Evacuate area. Keep upwind. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).</li> </ul>
6.1.1. For non-emergency personnel Protective equipment	: Wear Personal Protective Equipment as described in Section 8.
6.1.2. For emergency responders Protective equipment	: Wear suitable protective clothing, gloves, respirator, and eye or face protection. For further information refer to section 8: "Exposure controls/personal protection".
6.2. Environmental precautions Prevent entry to sewers and public waters.	Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.
6.3. Methods and material for conta For containment	<ul> <li>ainment and cleaning up</li> <li>Contain any spills with dikes or inert absorbents (e.g., sand or vermiculite) to prevent migration and entry into sewers or streams.</li> </ul>
Methods for cleaning up	: Soak up spills with inert absorbants, such as sand or vermiculite as soon as possible. Place in closed waste container for disposal. This material and its container must be disposed of in a safe way, and as per local, state, and federal legislation.
6.4. Reference to other sections No additional information available	
SECTION 7: Handling and stora	ge
7.1. Precautions for safe handling	

i i i i i i i i i i i i i i i i i i i	
Precautions for safe handling	: Do not handle until all safety precautions have been read and understood. Wear recommended personal protective equipment. Wash hands and other exposed areas with mild soap and water after handling material, leaving the laboratory, before eating, drinking or smoking and when leaving work.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

: Store in a -20°C freezer without a defrost cycle.



Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Glycerol	56-81-5	TWA	10 mg/m3	USA. OSHA – TABLE Z-1 Limits for Air Contaminants – 1910.1000
		TWA	10 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Upper Respir	ratory Tract Irritation	*
		TWA	5 mg/m3	USA. Occupational Exposure Limits (OSHA) – Table Z-1 Limits for Air Contaminants
		TWA	15 mg/m3	USA. Occupational Exposure Limits (OSHA) – Table Z-1 Limits for Air Contaminants

### 8.2. Exposure controls

Appropriate engineering controls

Personal protective equipment

Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Ensure adequate ventilation, especially in confined areas. Emergency safety shower and eye wash station should be available. Avoid prolonged or repeated exposure.
 Gloves. Protective goggles. Laboratory Coat.



Hand protection

- Eye protection Skin and body protection Respiratory protection
- : Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suitable gloves for this specific application can be recommended by the glove supplier. Suggested glove materials are: Neoprene, Nitrile.
- : Safety goggles should be worn when working with mixture. Avoid direct contact with eyes.
- : Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.
- : Use NIOSH/MSHA-approved dust/particulate respirator if exposure symptoms develop. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment. Do not breathe in vapour, mist, or dust.

### **SECTION 9: Physical and chemical properties**

SECTION 9: Physical and chemic	cal pro	perties
9.1. Information on basic physical a	nd chen	nical properties
Physical state	:	Liquid
Color	:	No data available
Odor	:	No data available
Odor Threshold	:	No data available
рН	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Relative evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility in Water	:	No data available
Log Pow	:	No data available
Log Kow	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Page <b>3</b> of <b>6</b>		



### Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information.

### **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

No dangerous reactions known under normal conditions of use.

### 10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

### 10.3. Possibility of hazardous reactions

None known. Hazardous polymerization does not occur.

10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

Strong oxidizing agents, strong bases.

### 10.6. Hazardous decomposition products

Carbon oxides.

### **SECTION 11: Toxicological information**

### 11.1. Information on toxicological effects

Acute toxicity	:	No data available
Skin corrosion/irritation	:	No data available
Serious eye damage/irritation	:	No data available
Respiratory or skin sensitisation	:	No data available
Germ cell mutagenicity	:	No data available
Carcinogenicity	:	IARC – No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.
		ACGIH – No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
		NTP – No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
		OSHA – No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity	:	No data available
Specific target organ toxicity (single exposure)	:	No data available
Specific target organ toxicity (repeated exposure)	:	No data available
Aspiration hazard	:	No data available
Symptoms/injuries after inhalation	:	May cause upper respiratory irratation. May cause headaches.
Symptoms/injuries after skin contact	:	Direct contact with skin will cause skin irritation.
Symptoms/injuries after eye contact	:	Direct contact will cause eye irritation.
Symptoms/injuries after ingestion	:	Will cause gastrointestinal distress.
Additional Information	:	The chemical, physical, and toxicological properties have not been thoroughly investigated. Repeated or prolonged exposure may cause headache, vomitting, and nausea. May cause kidney irregularities (based on human evidence).

### **SECTION 12: Ecological information**

12.1. Toxicity

No additional information available



Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

No additional information available

# SECTION 13: Disposal considerations 13.1. Waste treatment methods : Obtain the consent of pollution control authorities before discharging to wastewater treatment plants. Product should not be discharged to surface waters without a NPDES permit. Waste disposal recommendations : Dispose in a safe manner in accordance with local, state, and federal regulations. Avoid release to the environment. SECTION 14: Transport information In accordance with DOT

Not hazardous for transport Additional information

: No supplementary information available.

### Transport by sea

No additional information available

### Air transport

No additional information available

### **SECTION 15: Regulatory information**

### 15.1. US Federal regulations

### SARA 302 Components

No chemicals in this solution are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 311/312 Hazards

Chronic Health Hazard

### SARA 313

This materials does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### 15.2. International regulations

None.

### 15.3. US State regulations

### California Proposition 65

This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm.

### Massachusetts Right To Know Components Glycerol, CAS 56-81-5

New Jersey Right to Know Hazardous Substance List Glycerol, CAS 56-81-5

### Pennsylvania Right to Know List Glycerol, CAS 56-81-5

### **SECTION 16: Other information**

Indication of changes

: Revision D: Update branding



Ligase. Safety Data Sheet

Prepared according to Federal Register / Vol. 77 No. 58 / Monday, March 26, 2012 / Rules and Regulations		
	Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulation	۱S

Revision date Other information	: 08/02/2021 : Author: Biosearch Technologies
NFPA health hazard	: 0 – Poses no health hazard, no precautions necessary and would offer no hazard beyond that of ordinary combustible materials.
NFPA fire hazard	: 1 – Materials that require considerable preheating, under all ambient temperature condision, before ignition and combustion can occur. Flash point at or above 93.3°C.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
HMIS III Rating	
Health	: 0
Flammability	: 1
Physical Hazard	: 0
Personal Protection	:

This information is disclosed to the best of Biosearch Technologies' knowledge. This document does not constitute a contractual relation ship with product end users or handlers with respect to the possible presence of hazards in this item. Disposal should be in accordance with applicable regional, national and local laws and regulations.

LG

# Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: 10/14/2021 Version: C



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

### 1.1. Product identifier

Product name	: Elution Buffer
Product form	: Mixture
Product code	: F882705-1, F882705-2, F882705-6, F882705-7

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

Use of the substance/mixture

: Laboratory chemical.

### 1.3. Details of the supplier of the safety data sheet

Lucigen Corp. Legal entity of LGC, Biosearch Technologies 2905 Parmenter Street Middleton, WI 53562 U.S.A. Phone: (608) 831-9011 Fax: (608) 831-9012 E-mail: techsupport@LGCGroup.com

### 1.4. Emergency telephone number

Emergency number

: 1-888-575-9695 (Biosearch Technologies: Monday-Friday, 8:00AM-5:00PM)

### **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

### **GHS-US** classification

Not classified.

### 2.2. Label elements

### GHS-US labelling

No labeling applicable.

### 2.3. Other hazards

None.

### 2.4. Unknown acute toxicity (GHS-US)

No data available.

### SECTION 3: Composition/information on ingredients

### 3.2. Mixture

Synonyms

: 10 mM Tris-HCl.

### SECTION 4: First aid measures

4.1. Description of first aid measures	
First-aid measures general	: If exposed or concerned, consult a physician. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.
First-aid measures after inhalation	: IF INHALED: Remove to fresh air and keep at rest in a comfortable position for breathing. If not breathing, give artificial respiration. Consult a physician.
First-aid measures after skin contact	: IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin for at least 15 minutes with tepid water. Consult a physician.
First-aid measures after eye contact	: IF IN EYES: Immediately flush with plenty of tepid water for at least 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing. Consult a physician.
First-aid measures after ingestion	: IF SWALLOWED: Rinse mouth thoroughly and consult a physician. Do not induce vomiting.
4.2. Most important symptoms and effe	ects, both acute and delayed
Symptoms/injuries	: Not expected to present a significant acute hazard under anticipated conditions of normal use.
Symptoms/injuries after inhalation	: May cause irritation to respiratory tract.
Symptoms/injuries after skin contact	: May cause skin irritation.
Symptoms/injuries after eye contact	: May cause eye irritation.
Page 1 of 6	





# Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Symptoms/injuries after ingestion

: May cause gastrointestinal distress, nausea, and diarrhea.

4.3.	Indication of any immediate m	nedical attention and special treatment needed
	litional information.	ieurcal allenuon and special realment needed
SECT	ION 5: Firefighting measu	Ires
5.1.	Extinguishing media	
Suitabl	e extinguishing media	: Water spray, carbon dioxide, dry chemical powder, alcohol-resistant foam, or appropriate foar
5.2.	Special hazards arising from t	the substance or mixture
Fire ha	zard	: No data available.
Explosi	on hazard	: No data available.
Reactiv	/ity	: Can react with oxidizing agents.
5.3.	Advice for firefighters	
Firefigh	ting instructions	: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Protect	ion during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
SECT	ION 6: Accidental release	measures
6.1.	Personal precautions, protect	tive equipment and emergency procedures
Genera	almeasures	: Ventilate area. Evacuate area. Keep upwind. Spill should be handled by trained clean-up crew properly equipped with respiratory equipment and full chemical protective gear (see Section 8)
6.1.1.	For non-emergency personne	1
-	ive equipment	: Wear Personal Protective Equipment as described in Section 8.
6.1.2.	For emergency responders	
	For emergency responders ive equipment	: Wear suitable protective clothing, gloves, respirator, and eye or face protection. For further information refer to section 8: "Exposure controls/personal protection".
Protect		
Protect 6.2.	ive equipment Environmental precautions	
Protect 6.2.	ive equipment Environmental precautions	information refer to section 8: "Exposure controls/personal protection". s. Notify authorities if liquid enters sewers or public waters. Do not release to the environment.
Protect 6.2. Preven 6.3.	ive equipment Environmental precautions t entry to sewers and public waters	information refer to section 8: "Exposure controls/personal protection". s. Notify authorities if liquid enters sewers or public waters. Do not release to the environment. tainment and cleaning up
Protect 6.2. Preven 6.3. For cor	ive equipment Environmental precautions t entry to sewers and public waters Methods and material for cont	information refer to section 8: "Exposure controls/personal protection". Motify authorities if liquid enters sewers or public waters. Do not release to the environment. tainment and cleaning up Contain any spills with dikes or inert absorbents (e.g., sand or vermiculite) to prevent migration
<b>6.2.</b> Preven <b>6.3.</b> For cor	ive equipment Environmental precautions t entry to sewers and public waters Methods and material for cont stainment	<ul> <li>information refer to section 8: "Exposure controls/personal protection".</li> <li>s. Notify authorities if liquid enters sewers or public waters. Do not release to the environment.</li> <li>tainment and cleaning up <ul> <li>Contain any spills with dikes or inert absorbents (e.g., sand or vermiculite) to prevent migration and entry into sewers or streams.</li> <li>Soak up spills with inert absorbants, such as sand or vermiculite as soon as possible. Place in closed waste container for disposal. This material and its container must be disposed of in a</li> </ul> </li> </ul>

7.1. Precautions for safe handling		
Precautions for safe handling	: Do not handle until all safety precautions have been read and understood. Wear recommended personal protective equipment. Wash hands and other exposed areas with mild soap and water after handling material, leaving the laboratory, before eating, drinking or smoking and when leaving work.	
7.2. Conditions for safe storage, including any incompatibilities		
Storage conditions	Store in a -20°C freezer without a defrost cycle.	

### **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

Contains no substances with occupational exposure limits.

### 8.2. Exposure controls

Appropriate engineering controls

: Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Ensure adequate ventilation, especially in confined areas. Emergency safety shower and eye wash station should be available. Avoid prolonged or repeated exposure.



Safetv Data Sheet

Skin and body protection

Respiratory protection

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

repared according to repeat Register / vol. 17, No. 30/ Monday, March 20, 2012/ Rules and Regulations		
Personal protective equipment	: Gloves. Protective goggles. Laboratory Coat.	
Hand protection	: Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suitable gloves for this specific application can be recommended by the glove supplier. Suggested glove materials are: Neoprene, Nitrile.	
Eye protection	: Safety goggles should be worn when working with mixture. Avoid direct contact with eyes.	

- : Safety goggles should be worn when working with mixture. Avoid direct contact with eyes.
- : Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure. : Use NIOSH/MSHA-approved dust/particulate respirator if exposure symptoms develop. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment. Do not breathe in vapour, mist, or dust.

### **SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and chemical properties		
Physical state	:	Liquid
Color	:	No data available
Odor	:	No data available
Odor Threshold	:	No data available
рН	:	No data available
Melting point	:	No data available
Freezing point (50% aquesous solution)	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Relative evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	No data available
Relative vapour density at 20 °C		No data available
Relative density	:	No data available
Solubility in Water	:	No data available
Log Pow	:	No data available
Log Kow	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature		No data available
Viscosity, kinematic		No data available
Viscosity, dynamic		No data available
Explosive properties		No data available
Oxidising properties		No data available
Explosive limits	:	No data available
9.2. Other information		

None.

### SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reactions known under normal conditions of use.

### 10.2. **Chemical stability**

Stable under use and storage conditions as recommended in section 7.

### Possibility of hazardous reactions 10.3.

None known.

### 10.4. Conditions to avoid

No data available.

### 10.5. Incompatible materials

Oxidizing agents, bases. Page 3 of 6



### Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 10.6. Hazardous decomposition products

No data available.

### **SECTION 11: Toxicological information**

### 11.1. Information on toxicological effects

Acute toxicity	:	No data available
Skin corrosion/irritation	:	No data available
Serious eye damage/irritation	:	No data available
Respiratory or skin sensitisation	:	No data available
Germ cell mutagenicity	:	No data available
Carcinogenicity	:	IARC – No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.
		ACGIH – No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
		NTP – No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
		OSHA – No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity	:	No data available
Specific target organ toxicity (single exposure)	:	No data available
Specific target organ toxicity (repeated exposure)	:	No data available
Aspiration hazard	:	No data available
Symptoms/injuries after inhalation	:	May cause irritation to respiratory tract.
Symptoms/injuries after skin contact	:	May cause skin irritation.
Symptoms/injuries after eye contact	:	May cause eye irritation.
Symptoms/injuries after ingestion	:	May cause gastrointestinal distress, nausea, and diarrhea.
Additional Information	:	RTECS : Not available. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### **SECTION 12: Ecological information**

### 12.1. Toxicity

No additional information available

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations		
13.1. Waste treatment methods		
Waste treatment methods	: Obtain the consent of pollution control authorities before discharging to wastewater treatment plants. Product should not be discharged to surface waters without a NPDES permit.	
Waste disposal recommendations	: Dispose in a safe manner in accordance with local, state, and federal regulations. Avoid release to the environment.	

### **SECTION 14: Transport information**

DOT

Not dangerous goods



### Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### IMDG

Not dangerous goods

### ΙΑΤΑ

Not dangerous goods

### **SECTION 15: Regulatory information**

### 15.1. US Federal regulations

### SARA 304 Extremely Hazardous Substances Reportable Quantity

This product does not contain any components with a section 304 EHS RQ.

### SARA 311/312 Hazards

No SARA Hazards

### **SARA 302**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 313

This material does ot contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### 15.2. International regulations.

None.

### 15.3. US State regulations

### **California Proposition 65**

This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm.

### Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

### New Jersey Right to Know Hazardous Substance List

2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride, CAS 1185-53-1 Water, CAS 7732-18-5

### Pennsylvania Right to Know List

2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride, CAS 1185-53-1 Water, CAS 7732-18-5

SECTION 16: Other information	on
Indication of changes	: Revision C: Update branding.
Revision date	: 10/14/2021
Otherinformation	: Author: Biosearch Technologies
NFPA health hazard	: 0 – Poses no health hazard, no precautions necessary and would offer no hazard beyond that of ordinary combustible materials.
NFPA fire hazard	: 0 – Material that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone and sand.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
HMIS III Rating	
Health	: 0
Flammability	: 0
Physical Hazard	: 0
Personal Protection	:

### Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

This information is disclosed to the best of Biosearch Technologies' knowledge. This document does not constitute a contractual relationship with product end users or handlers with respect to the possible presence of hazards in this item. Disposal should be in accordance with applicable regional, national and local laws and regulations.

