

19 July 2021

Kit Components

Product Code	Description
60240-0, 60240-1, 60240-2	Endura™ Chemically Competent Cells (Duo)

Components

Endura Chemically Competent Cells	F861215
pUC 19 Transformation Control	F92078-1
Recovery Media	F98226-0, F98226-1



Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: 10/13/2021 Version: B



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

1.1. Product identifier

Product name	: Endura [™] Chemically Competent Cells
Product form	: Mixture
Product code	: F861215, F861224

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

Use of the substance/mixture : *E. coli* in glycerol solution, laboratory materials.

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 a hazardous substance or mixture.

2.2. Label elements

GHS-US labelling

Not a hazardous substance or mixture.

2.3. Other hazards

Irritant to eyes and skin. Target organs are kidneys.

2.4. Unknown acute toxicity (GHS-US)

No data available.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%
E. coli, CAS# N/A Not a hazardous ingredient at levels requiring disclosure by the OSHA Hazard Communication Standard (29 CFR 1910.1200).	Ingredient in product.	0.1-10
Glycerol, CAS # 56-81-5 EC# 200-289-5 Chemical Formula: C ₃ H ₈ O ₃ Molecular Weight: 92.09 g/mol Synonyms for Glycerol: Glycerin, 1,2,3-Propanetriol	Ingredient in product.	15

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.



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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.			
Symptoms/injuries after skin contact	: May cause skin irritation.			
Symptoms/injuries after eye contact	: Direct contact with the eyes is likely to be irritating.			
Symptoms/injuries after ingestion	: May cause gastrointestinal irritation.			

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures			
5.1. Extinguishing media			
Suitable extinguishing media	: Water spray, carbon dioxide, dry chemical powder, 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	: No dangerous reactions known under normal conditions of use.		
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 pro			

SECTION 6: Accidental release measures

6.1. Personal precautions, protective	Personal precautions, protective 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 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					
	and the second				

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 containing	. Methods and material for containment 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 at -70°C. Keep container tightly closed. Do not store with sodium hydride, phosphorous trioxide, perchloric acid, chlorine, calcium hypochlorite, nitric acid, sulphuric acid, sodium peroxide, hydrogen peroxide, or potassium permanganate, as these substances may cause a violent or explosive reaction if they come in to direct contact. Mixture is hygroscopic.

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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/3	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Upper Respiratory 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

- : 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.
- Personal protective equipment
- : 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. 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 of glycerol			
Physical state	: Liquid, viscous and colorless		
Color	: Colorless		
Odor	: Odorless		
Odor Threshold	: No data available		
pН	: 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		

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Explosive properties	
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- Oxidising properties
- Explosive limits

: No data available : No data available

: 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.

10.3. Possibility of hazardous reactions

None known. Hazardous plymerization 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 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 identified as a known or anticpated carcinogen by NTP.
		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. May cause headaches.
Symptoms/injuries after skin contact	:	May cause skin irritation.
Symptoms/injuries after eye contact	:	Direct contact with the eyes is likely to be irritating.
Symptoms/injuries after ingestion	:	May cause gastrointestinal irritation.
Additional Information	:	RTECS: MA8050000. Prolonged exposure may cause nausea, vomitting, and headache. Kidneys may be affected.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available.

12.2. Persistence and degradability

No additional information available.

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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	ation	

In accordance with DOT	
Not hazardous for transport	
Additional information	
Otherinformation	: No supplementary information available.
Transport by sea	
No additional information available	
Air transport	
No additional information available	

SECTION 15: Regulatory information

Glycerol

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

Chronic Health Hazard

SARA 302

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

SARA 313

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

15.2. International regulations

European Union Directive 67/548/EEC: Irritant R36/38, irritant to eyes and skin. S26, in the case of eye contact, rinse immediately with plenty of water and consult a physician. S36, wear appropriate personal protective equipment.

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 Glycercol, CAS 56-81-5

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

Pennsylvania Right to Know List Glycercol, CAS 56-81-5



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SECTION 16: Other inform	nation
Indication of changes	: Revision B: Update branding.
Revision date	: 10/13/2021
Other information	: Author: Biosearch Technologies.
NFPA health hazard	: 1 – Exposure will cause irriation.
NFPA fire hazard	: 1 – Flash point is at or above 93.3°C.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

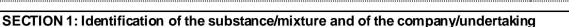
HMIS III Rating	
Health	: 1
Flammability	: 1
Physical Hazard	: 0
Personal Protection	:

This information is disclosed to the best of Biosearch Technologies' knowledge. This document does not constitute a contractual 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.

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: Laboratory Chemicals.

1.1. Product identifier

Product name	: pUC19 Transformation Control
Product form	: Mixture
Product code	: F92078-1

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

Use of the substance/mixture

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 a hazardous substance or mixture.

2.2. Label elements

GHS-US labelling

Not a hazardous substance or mixture.

2.3. Other hazards

No additional information available.

2.4. Unknown acute toxicity (GHS-US)

No data available.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Non-hazardous mixture

SECTION 4: First aid measures

4.1. Description of first aid measures		
First-aid measures general	 If exposed or concerned, get medical attention/advice. 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 with tepid water for at least 15 minutes. If symptoms continue, consult a physician.	
First-aid measures after eye contact	: IF IN EYES: Immediately flush with tepid water for at least 15 minutes. Remove contact lenses if present and can easy to do so. Continue rinsing. If symptoms continue, consult a physician.	
First-aid measures after ingestion	: IF SWALLOWED: Rinse mouth thoroughly. Do not induce vomiting. Consult a physician if symptoms persist. Do not give anything by mouth to an unconscious person.	
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.	
Symptoms/injuries after skin contact	: May cause skin irritation.	





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Symptoms/injuries after eye contact	: Direct contact with the eyes is likely to be irritating.
Symptoms/injuries after ingestion	: May cause gastrointestinal irritation.
4.3. Indication of any immediate m	edical attention and special treatment needed
No additional information available.	
SECTION 5: Firefighting measu	res
5.1. Extinguishing media	
Suitable extinguishing media	: Incase of fire, use water, dry chemical, chemical foam, or alcohol-resistance foam. Use agents most appropriate to extinguish the fire.
5.2. Special hazards arising from t	he substance or mixture
Fire hazard	: Product is not flammable.
Explosion hazard	: Product is not explosive.
Reactivity	: No dangerous reactions known under normal conditions of use.
5.3. Advice for firefighters	
Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. In the event of fire and/or explosion, do not breathe fumes. Do not dispose of fire fighting water in the environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
SECTION 6: Accidental release	measures
	ive equipment and emergency procedures
General measures	 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	I
0 71	I : Wear Protective equipment as described in Section 8.
Protective equipment	
 6.1.1. For non-emergency personne Protective equipment 6.1.2. For emergency responders Protective equipment 	
Protective equipment 6.1.2. For emergency responders	 Wear Protective equipment as described in Section 8. Wear suitable protective clothing, gloves and eye or face protection. For further information
Protective equipment 6.1.2. For emergency responders Protective equipment 6.2. Environmental precautions	 Wear Protective equipment as described in Section 8. Wear suitable protective clothing, gloves and eye or face protection. For further information
Protective equipment 6.1.2. For emergency responders Protective equipment 6.2. Environmental precautions Prevent entry to sewers and public waters	 Wear Protective equipment as described in Section 8. Wear suitable protective clothing, gloves and eye or face protection. For further information refer to section 8: "Exposure controls/personal protection". Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.
 Protective equipment 6.1.2. For emergency responders Protective equipment 6.2. Environmental precautions Prevent entry to sewers and public waters 	 Wear Protective equipment as described in Section 8. Wear suitable protective clothing, gloves and eye or face protection. For further information refer to section 8: "Exposure controls/personal protection". Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.
 Protective equipment 6.1.2. For emergency responders Protective equipment 6.2. Environmental precautions Prevent entry to sewers and public waters 6.3. Methods and material for cont For containment 	 Wear Protective equipment as described in Section 8. Wear suitable protective clothing, gloves and eye or face protection. For further information refer to section 8: "Exposure controls/personal protection". Notify authorities if liquid enters sewers or public waters. Avoid release to the environment. ainment and cleaning up Contain any spills with dikes or inert absorbents (e.g., sand or vermiculite) to prevent migration
Protective equipment 6.1.2. For emergency responders Protective equipment 6.2. Environmental precautions Prevent entry to sewers and public waters 6.3. Methods and material for cont For containment Methods for cleaning up	 Wear Protective equipment as described in Section 8. Wear suitable protective clothing, gloves and eye or face protection. For further information refer to section 8: "Exposure controls/personal protection". Notify authorities if liquid enters sewers or public waters. Avoid release to the environment. ainment and cleaning up Contain any spills with dikes or inert absorbents (e.g., sand or vermiculite) to prevent migratior and entry into sewers or streams. Soak up spills with inert absorbants, such as vermiculite and sand. This material and its
 Protective equipment 6.1.2. For emergency responders Protective equipment 6.2. Environmental precautions Prevent entry to sewers and public waters 6.3. Methods and material for cont For containment Methods for cleaning up 	 Wear Protective equipment as described in Section 8. Wear suitable protective clothing, gloves and eye or face protection. For further information refer to section 8: "Exposure controls/personal protection". Notify authorities if liquid enters sewers or public waters. Avoid release to the environment. ainment and cleaning up Contain any spills with dikes or inert absorbents (e.g., sand or vermiculite) to prevent migratior and entry into sewers or streams. Soak up spills with inert absorbants, such as vermiculite and sand. This material and its
Protective equipment 6.1.2. For emergency responders Protective equipment 6.2. Environmental precautions Prevent entry to sewers and public waters 6.3. Methods and material for cont For containment Methods for cleaning up 6.4. Reference to other sections No additional information available	 Wear Protective equipment as described in Section 8. Wear suitable protective clothing, gloves and eye or face protection. For further information refer to section 8: "Exposure controls/personal protection". Notify authorities if liquid enters sewers or public waters. Avoid release to the environment. ainment and cleaning up Contain any spills with dikes or inert absorbents (e.g., sand or verniculite) to prevent migratior and entry into sewers or streams. Soak up spills with inert absorbants, such as verniculite and sand. This material and its container must be disposed of in a safe way, and as per local, state, and federal legislation.
Protective equipment 6.1.2. For emergency responders Protective equipment 6.2. Environmental precautions Prevent entry to sewers and public waters 6.3. Methods and material for cont For containment Methods for cleaning up 6.4. Reference to other sections No additional information available SECTION 7: Handling and stora	 Wear Protective equipment as described in Section 8. Wear suitable protective clothing, gloves and eye or face protection. For further information refer to section 8: "Exposure controls/personal protection". Notify authorities if liquid enters sewers or public waters. Avoid release to the environment. ainment and cleaning up Contain any spills with dikes or inert absorbents (e.g., sand or verniculite) to prevent migratior and entry into sewers or streams. Soak up spills with inert absorbants, such as verniculite and sand. This material and its container must be disposed of in a safe way, and as per local, state, and federal legislation.
 Protective equipment 6.1.2. For emergency responders Protective equipment 6.2. Environmental precautions Prevent entry to sewers and public waters 6.3. Methods and material for content For containment Methods for cleaning up 6.4. Reference to other sections 	 Wear Protective equipment as described in Section 8. Wear suitable protective clothing, gloves and eye or face protection. For further information refer to section 8: "Exposure controls/personal protection". Notify authorities if liquid enters sewers or public waters. Avoid release to the environment. ainment and cleaning up Contain any spills with dikes or inert absorbents (e.g., sand or vermiculite) to prevent migration and entry into sewers or streams. Soak up spills with inert absorbants, such as vermiculite and sand. This material and its container must be disposed of in a safe way, and as per local, state, and federal legislation.
Protective equipment 6.1.2. For emergency responders Protective equipment 6.2. Environmental precautions Prevent entry to sewers and public waters 6.3. Methods and material for cont For containment Methods for cleaning up 6.4. Reference to other sections No additional information available SECTION 7: Handling and stora 7.1. Precautions for safe handling	 Wear Protective equipment as described in Section 8. Wear suitable protective clothing, gloves and eye or face protection. For further information refer to section 8: "Exposure controls/personal protection". Notify authorities if liquid enters sewers or public waters. Avoid release to the environment. ainment and cleaning up Contain any spills with dikes or inert absorbents (e.g., sand or verniculite) to prevent migratior and entry into sewers or streams. Soak up spills with inert absorbants, such as verniculite and sand. This material and its container must be disposed of in a safe way, and as per local, state, and federal legislation. age Do not handle until all safety precautions have been read and understood. Wear recommende personal protective equipment. Wash hands and other exposed areas with mild soap and wate after working with mixture, before leaving the laboratory, before eating, drinking or smoking an when leaving work. Avoid ingestion and inhalation. Keep container tightly closed.

SECTION 8: Exposure controls/personal protection

8.1. **Control parameters**

Components with workplace control parameters

Contains no substances with occupational exposure limit values.



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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 should be available.
Personal protective equipment	: Gloves. Protective goggles.
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.
Eye protection	: Use eye protection suitable to the environment. Avoid direct contact with eyes.
Skin and body protection	: Wear long sleeves, and chemically impervious PPE to minimize bodily exposure.
Respiratory protection	: Use NIOSH-approved dust/particulate respirator as needed. Where vapor, mist, or dust exceed

PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties			
Physical state	: Liquid containing dissolved material		
Color	: Colorless		
Odor	: No data available		
Odor Threshold	: No data available		
рН	: ~7		
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	: 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			

9.2. Other information

No additional information available

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.



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10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not available
Skin corrosion/irritation	: Not available
Serious eye damage/irritation	: Not available
Respiratory or skin sensitisation	: Not available
Germ cell mutagenicity	: Not available
Carcinogenicity	: Not available
Reproductive toxicity	: Not available
Specific target organ toxicity (single exposure)	: Not available
Specific target organ toxicity (repeated exposure)	: Not available
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: May cause upper respiratory irratation.
Symptoms/injuries after skin contact	: May cause skin irritation.
Symptoms/injuries after eye contact	: Direct contact with the eyes is likely to be irritating.
Symptoms/injuries after ingestion	: May cause gastrointestinal irritation.

SECTION 12: Ecological information			
12.1.	Toxicity		
No add	litional information available.		
12.2.	Persistence and degradability		
No add	litional information available.		
12.3.	Bioaccumulative potential		
No add	litional information available.		
12.4.	12.4. Mobility in soil		
No add	No additional information available.		
12.5.	Other adverse effects		
No add	litional information available.		
SECT	ION 13: Disposal considerat	ions	
13.1.	Waste treatment methods		
Wastet	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

Other information

: No supplementary information available.

Transport by sea

No additional information available

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Air transport

No additional information available

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 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

No additional information available.

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

This mixture not listed on the following:	
U.S Massachusetts - Right To Know List	
U.S New Jersey - Right to Know Hazardous Substance List U.S Pennsylvania - RTK (Right to Know) List	
0.5 Tennsylvania - KTK (Kight to Khow) List	
SECTION 16: Other information	

Indication of changes	: Revision B: Update branding.
Revision date	: 10/15/2021
Otherinformation	: Author: Biosearch Technologies.
NFPA health hazard	: 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.
NFPA fire hazard	: 0 - Materials that will not burn.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
HMIS III Rating	
Health	: 0

Health	•	0
Flammability	:	0
Physical	:	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.



Safety Data Sheet

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

1.1. Product identifier

Product name	: Recovery Media
Product form	: Mixture
Product code	: F98226-0, F98226-1, F98226-3, F98226-6

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

Use of the substance/mixture : Laboratory reagent for *in vitro* research use only.

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

2.2. Label elements

GHS-US labelling

No labeling applicable

2.3. Other hazards

Other hazards not contributing to the classification None under normal conditions.

.2.4. Unknown acute toxicity (GHS-US)

No data available.

SECTION 3: Composition/information on ingredients

3.1. Substance

Salts and non-animal origin media components for use in the growth of bacterial cultures.

3.2. Mixture

Name	Product identifier	%
Contains no hazardous ingredients at levels requiring disclosure by the OSHA Hazard Communication Standard (29 CFR 1910.1200).	Not applicable.	Not applicable

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. IF IN EYES: Immediately flush with plenty of tepid water for at least 15 minutes. Remove First-aid measures after eye contact ÷ 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. Symptoms/injuries after skin contact : May cause skin irritation.



Symptoms/injuries after eye contact	: Direct contact with the eyes is likely to be irritating.	
Symptoms/injuries after ingestion	: May cause gastrointestinal irritation.	
4.3. Indication of any immediate me No additional information available	edical attention and special treatment needed	
SECTION 5: Firefighting measur	es	
5.1. Extinguishing media		
Suitable extinguishing media	: Water spray, carbon dioxide, dry chemical powder, or appropriate foam.	
5.2. Special hazards arising from th	e substance or mixture	
Fire hazard	: Emits toxic fumes under fire conditions.	
Explosion hazard	: Emits toxic fumes under fire conditions.	
Reactivity	: No dangerous reactions known under normal conditions of use.	
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 r	neasures	
6.1. Personal precautions, protectiv	ve 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 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	inment 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	ge	
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, inc	cluding any incompatibilities	
Storage conditions	Store at -70°C. Keep container tightly closed. Do not store with sodium hydride, phosphorous trioxide, perchloric acid, chlorine, calcium hypochlorite, nitric acid, sulphuric acid, sodium peroxide, hydrogen peroxide, or potassium permanganate, as these substances may cause a	

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SECTION 7: Handling and storage		
7.1.	Precautions for safe handling	
Precau	tions 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		
Storag	e conditions	Store at -70°C. Keep container tightly closed. Do not store with sodium hydride, phosphorous trioxide, perchloric acid, chlorine, calcium hypochlorite, nitric acid, sulphuric acid, sodium peroxide, hydrogen peroxide, or potassium permanganate, as these substances may cause a violent or explosive reaction if they come in to direct contact. Mixture is hygroscopic.
SECTION 8: Exposure controls/personal protection		

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8.1. **Control parameters**

8.2. Exposure controls

Appropriate engineering controls : Ensure adequate ventilation, especially in confined areas.



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Personal protective equipment	: Gloves. Protective goggles.
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. Suggested glove materials are: Natural rubber ("latex"), Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl.
Eye protection	: Chemical goggles or safety glasses.
Skin and body protection	: Wear suitable protective clothing. Wear long sleeves.
SECTION 0. Devoiced and show	ical proportion

SECTION 9: Physical and chemical properties

9.1. Information on basic physical an	d chemical properties of glycerol
Physical state	: No data available
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.

10.3. Possibility of hazardous reactions

None known. Hazardous plymerization does not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong oxidizing agents, strong bases.



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10.6. Hazardous decomposition products

Thermal decomposition generates : Not known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

In accordance with DOT

Not hazardous for transport

Additional information

Otherinformation

: No supplementary information available.

Transport by sea

No additional information available

Air transport No additional information available

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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 302

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

SARA 313

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

15.2. International regulations

European Union Directive 67/548/EEC: Irritant R36/38, irritant to eyes and skin. S26, in the case of eye contact, rinse immediately with plenty of water and consult a physician. S36, wear appropriate personal protective equipment.

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 Not Listed

New Jersey Right to Know Hazardous Substance List

Pennsylvania Right to Know List Not Listed

SECTION 16: Other information		
Indication of changes	: Revision B: Update branding.	
Revision date	: 11/09/2021	
Otherinformation	: Author: Biosearch Technologies.	
NFPA health hazard NFPA fire hazard	 : 1 – Exposure will cause irriation. : 1 – Flash point is at or above 93.3°C. 	
NFPA reactivity	 O - Normally stable, even under fire exposure conditions, and are not reactive with water. 	>
HMIS III Rating		

:	1
:	1
:	0
:	
	:

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