

## SAFETY DATA SHEET

### SECTION 1 — IDENTIFICATION

**Product Identifier:** GradientEZ™ 3D cell migration system

**Manufacturer:** Lena Biosciences, Inc.

**Address:** 311 Ferst Drive, Atlanta, GA 30332, U.S.A.

**Phone Number:** + 1 (404) 375-2030

**Emergency Phone Number:** + 1 (404) 375-2030

**Recommended Use:** Cells, cell culture, test compound, hydrogel and/or polymer embedding.

**Handling and manipulation:** In a Class II Biological Safety Cabinet or a chemical fume hood. Use forceps to transfer. Place in a lidded cell culture disposable when transferring between the hood, incubator, imaging or readout equipment.

**Protective clothing:** Standard cell culture lab personal protective clothing; safety goggles, chemically resistant gloves and lab coat.

**After use:** Wash hands thoroughly with soap and water.

Under Recommended Use, exposure is limited.

THE SDS HAS BEEN PREPARED IN CASE OF ACCIDENTAL EYE, SKIN AND RESPIRATORY EXPOSURE.

**Restrictions on Use:** Not for use other than Recommended Use.

Not for use in animals or humans.

Not for use in clinical, diagnostic or therapeutic procedures.

### SECTION 2 — HAZARD IDENTIFICATION

**Hazard Classification(s):** Skin Corrosion / Irritation, Category 2  
Eye Damage / Irritation, Category 2  
Skin sensitizer, Category 1  
Toxic to Reproduction, Category 1  
Specific Target Organ Toxicity - Single Exposure, Category 3 (respiratory system)

**GHS Label Elements:**



**Signal Word:** WARNING

**Hazard Statement(s):** May cause skin irritation  
 May cause serious eye damage  
 May cause an allergic skin reaction  
 Suspected of damaging fertility or the unborn child  
 May cause respiratory irritation  
 May be harmful if swallowed

**Precautionary Statement(s):** **Prevention**

Do not handle until all safety precautions have been read and understood. Wear protective gloves/clothing and eye protection. Wash hands thoroughly after handling.

**Response**

IF exposed or concerned: Get medical advice/attention.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a doctor/physician immediately.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a doctor/physician immediately.

IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs: Get medical advice/attention.

IF SWALLOWED: Call a doctor/physician immediately. Rinse mouth.

Do not handle until all safety precautions have been read and understood. Wear protective gloves/clothing and eye protection. Wash hands thoroughly after handling.

**Storage**

Store in a ventilated place in the original packaging.

**Disposal**

Dispose unused product in accordance with all applicable regulations.

AFTER CELL STUDIES: Dispose in biohazard bag.

AFTER CELL STAINING: Dispose in biohazard bag.

**Hazard(s) Not Otherwise Classified**

None known.

## SECTION 3 — COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component	Percent
65997-17-3	Glass, oxide, chemicals	> 70%
9002-89-5	Homopolymer	< 20%

SPECIFIC CHEMICAL IDENTITY AND/OR EXACT PERCENTAGE (CONCENTRATION) OF COMPOSITION HAS BEEN WITHHELD AS A TRADE SECRET.

## SECTION 4 — FIRST AID MEASURES

**Most Important Symptoms/Effects:** **Acute**  
 Possible respiratory tract irritation  
 Possible eye damage

Possible skin irritation  
Possible allergic skin reaction

**Delayed**

Possible allergic reactions  
Possible reproductive effects

**Required Treatment:** If adverse effects occur, treat symptomatically and supportively.

**Necessary Measures:** IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a doctor/physician immediately.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a doctor/physician immediately.  
IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs: Get medical advice/attention.  
IF SWALLOWED: Call a doctor/physician immediately. Rinse mouth.

## SECTION 5 — FIRE FIGHTING MEASURES

**Suitable Extinguishing Media:** Use extinguishing media appropriate for the surrounding fire.  
Water is the preferred extinguishing media.

**Unsuitable Extinguishing Media:** None known.

**Fire Fighting Measures:** Keep unnecessary people away, isolate area and deny entry. Avoid inhalation of material or combustion by-products.  
In any sustained fire, wear self-contained breathing apparatus (SCBA).

**Special Protective Equipment and Precautions for Firefighters:** Use equipment appropriate to the surrounding fire.

**Specific Hazards Arising from the Chemical:** The largest part of this product is nonflammable. As in any sustained fire and a large product quantity, combustion products will be released.

**Hazardous Combustion Products:** Oxides of carbon and oxides of nitrogen.

## SECTION 6 — ACCIDENTAL RELEASE MEASURES

**Emergency Procedures:** None known.

**Protective Equipment:** Wear protective clothing, chemically resistant gloves and safety goggles to prevent eye and skin contact.

**Methods for Containment and Cleaning Up:** Use vacuuming or wet sweeping methods instead of dry sweeping to collect spill material. Dispose in accordance with government regulations or dispose in biohazard bag if used will cells. Keep debris minimal by locating waste disposal equipment near work areas.

## SECTION 7 — HANDLING AND STORAGE

**Precautions for Safe Handling:** Handle in a Class II Biological Safety Cabinet or a chemical fume hood. Use forceps to transfer. Keep in a lidded container outside of the cell culture hood or chemical fume hood. Wear protective clothing, chemically resistant gloves and safety goggles to prevent eye and skin contact. Use the recommended protective equipment (See Section 8). Wash hands with soap and water after use.

**Conditions for Safe Storage, Including any Incompatibilities:** Store in the original packaging until use. Avoid extreme temperatures. For optimum performance, store at 25°C or less. Avoid dry environment. While not a conductor, material may accumulate static charge. Recommended relative humidity greater than 40% and preferably 65% ± 10%. Keep separated from incompatible substances.

INCOMPATIBILITIES: NOT APPLICABLE UNDER NORMAL CONDITIONS OF STORAGE AND USE.

Incompatible materials and conditions: Concentrated hydrofluoric acid, concentrated sodium hydroxide, and extreme temperatures.

## SECTION 8 — EXPOSURE CONTROLS / PERSONAL PROTECTION

**Component Exposure Limits:** THE MATERIAL IS NOT RESPIRABLE.

THERE IS NO EVIDENCE THAT THE BELOW CONSTITUENTS WILL BE RELEASED FROM THE MATERIAL IN CONCENTRATIONS WHICH WOULD EXCEED AN ESTABLISHED OSHA PEL OR THE ACGIH TLV.

Component	OSHA PEL Permissible Exposure Limits	ACGIH TLV Threshold Limit Values
Glass, oxide, chemicals CAS: 65997-17-3	TWA 15mg/m <sup>3</sup> total nuisance dust	TWA 5 mg/m <sup>3</sup> inhalable
Homopolymer CAS: 9002-89-5	Not Listed	Not Listed

**Appropriate Engineering Controls:** General room ventilation is adequate for the use of this product.

**Personal Protective Equipment:** **Eye Protection**  
Safety glasses with side shields.

**Skin Protection**  
Laboratory coat and chemically resistant gloves.

**Respiratory Protection**  
Use appropriate respiratory protection for use other than Recommended Use.

**Other Equipment:** Safety shower, eyewash stations and hand washing equipment should be available close to the work area as needed.

## SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** White, porous material

**Physical State:** Solid

**Electrical Conductivity:** Insulator

**Odor:** None

<b>Odor Threshold:</b>	Not available
<b>pH:</b>	Not available
<b>Melting Point/Freezing Point:</b>	Not available
<b>Initial Boiling Point/Boiling Range:</b>	Not available
<b>Flash Point:</b>	Not available
<b>Evaporation Rate:</b>	Not available
<b>Flammability (Solid/Gas):</b>	Not available
<b>Vapor Pressure:</b>	Not available
<b>Vapor Density:</b>	Not available
<b>Specific Gravity:</b>	Not available
<b>Solubility:</b>	Not soluble
<b>Partition Coefficient (n-octanol/water):</b>	Not available
<b>Auto Ignition Temperature:</b>	Not available
<b>Decomposition Temperature:</b>	Not available
<b>Viscosity:</b>	Not available
<b>Volatility:</b>	None
<b>Oxidizing Properties:</b>	None

## SECTION 10 — STABILITY AND REACTIVITY

<b>Reactivity:</b>	Heating may cause a fire.
<b>Chemical Stability:</b>	Stable.
<b>Possibility of Hazardous Reactions:</b>	None known.
<b>Conditions to Avoid:</b>	Extreme temperatures and dry environment.
<b>Incompatible Materials:</b>	Concentrated hydrofluoric acid, concentrated sodium hydroxide and extreme temperatures.
<b>Hazardous Decomposition:</b>	Combustion: Oxides of carbon and oxides of nitrogen.

## SECTION 11 — TOXICOLOGICAL INFORMATION

<b>Routes of Exposure:</b>	Inhalation, ingestion, skin and eye contact.
<b>Related Symptoms:</b>	<b>Symptoms of inhalation and overexposure to dust</b>

Possible irritation of eyes, skin, nose, throat, stomach or respiratory tract. May cause an allergic skin reaction.

**Symptoms of ingestion**

No hazard is expected from the normal use of this product.

**Symptoms of skin contact or rubbing**

May cause abrasion or skin irritation. May cause an allergic skin reaction.

**Symptoms of eye contact**

Contact with eyes may cause eye irritation, inflammation, or eye damage.

**Acute and Chronic Effects:** Possible respiratory tract irritation  
Possible eye damage  
Possible skin irritation  
Possible allergic reactions  
Possible reproductive effects

**Numerical Measures of Toxicity:** Toxicological information for this product is not available.

**Component Analysis - LD50/LC50**

The components of this material have been reviewed in various sources and no selected endpoints have been identified.

**Irritation/corrosivity data**

Contact with material may cause skin irritation. Inhalation may cause respiratory tract irritation.

**Respiratory sensitization**

Not available.

**Eye damage/ eye irritation**

Not available.

**Dermal sensitization**

Not available.

**Carcinogenicity**

Carcinogenetic information for this product is not available.

**Component carcinogenicity**

Not listed by OSHA.

Not listed by NTP at specific characteristic dimensions of this product's components.

**Mutagenic data**

Not available.

**Reproductive effects data**

Not available.

**Tumorigenic data**

Not available for the product as a whole.

**Specific target organ toxicity - single exposure**

Not available for the product as a whole.

**Specific target organ toxicity - repeated exposure**

Not available for the product as a whole.

**Aspiration hazard**

Not available for the product as a whole.

**SECTION 12 — ECOLOGICAL INFORMATION****Ecotoxicity:** Ecotoxicity data for this product as a whole is not available.**Persistence and Degradability:** No data available.**Bioaccumulative Potential:** No data available.**Mobility:** No data available.**Other Ecological Information:** No additional information is available.**SECTION 13 — DISPOSAL CONSIDERATIONS****Disposal Methods:** Dispose unused material in accordance with all applicable regulations.**Component Waste Numbers:** No EPA Waste Numbers are applicable for this product's components.**SECTION 14 — TRANSPORT INFORMATION****DOT Shipping Name:** Not available.**DOT Label:** None.**Technical Shipping Name:** Not available.**Packing Group:** None.**DOT Placard:** None.**DOT Hazard Class:** None.**UN/NA Number:** None.**SECTION 15 — REGULATORY INFORMATION****Component Analysis:** **U.S. Federal Regulations** do not require an OSHA process safety plan.**U.S. State Regulations**

None of this product's components are listed on the state lists from CA, MA, MN, NJ or PA. California Proposition 65: not listed.

**Canada Regulations**

WHMIS classification: D2B.

**European Union:**

REACH: Chemical safety assessment is not required.

**Japan**

Poisonous and deleterious substances control law: not listed.

**Australia**

Hazchem code: not listed.

**SECTION 16 — OTHER INFORMATION****Summary of Changes: Revision**

1.00  
1.01 Address change  
1.02 Logo change

**Date of last revision**

July 8, 2017

**Product Part Numbers** GradientEZ™ 3D cell migration system**Covered:** SC-G001-0012

SC-G002-0012

**Contact:** support@lenabio.com**Courses and Training:** Seek courses and training to reduce hazards associated with this product prior to use.

<b>Abbreviations:</b>	<b>ACGIH</b>	American Conference of Government Industrial Hygienists
	<b>CAS</b>	Chemical Abstract Service
	<b>EPA</b>	United States Environmental Protection Agency
	<b>LC50</b>	Lethal Concentration 50% is the concentration of a chemical which kills 50% of a sample population
	<b>LD50</b>	Lethal Dose 50% is the dose of a chemical which kills 50% of a sample population
	<b>LEL</b>	Lower Explosive Limit
	<b>NTP</b>	National Toxicology Program (US)
	<b>OSHA</b>	United States Occupational Safety and Health Administration
	<b>PEL</b>	Permissible Exposure Limits
	<b>TLV</b>	Threshold Limit Values
	<b>TWA</b>	Time Weighted Average
	<b>WHMIS</b>	Workplace Hazardous Materials Information System (Canada)

**Other Information:** This safety data sheet has been prepared in compliance with regulation 29 CFR 1910.1200 and OSHA Hazard Communication Standard and therefore complies with the requirements of the European Union.

The information in this safety data sheet is based on data and the state of knowledge at the time of last revision. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the products/substances/preparations/mixtures mentioned in this safety data sheet. New safety data sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to products/substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality



specification for the products/substances/preparations/mixtures in question.

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