

## 1. Identification

### 1.1. Product identifier

**Product Identity** Cell-Mate3D™

**Alternate Names** Cell-Mate3D™

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

**Intended use** See Technical Data Sheet.

**Application Method** See Technical Data Sheet.

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

**Company Name** BRTI Life Sciences  
Bioactive Regenerative Therapeutics, Inc.  
North Shore Business Enterprise, Center-Bay 130 1313,  
Fairgrounds Road  
Two Harbors, Minnesota 55616

### Emergency

**24 hour Emergency Telephone No.** 888-868-9100

**Customer Service: BRTI Life Sciences** 888-868-9100  
Email: info@brtilifesciences.co

## 2. Hazard(s) identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008

No applicable CLP categories.

### 2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

#### According to Regulation (EC) No 1272/2008

No applicable CLP categories.

#### **[Prevention]:**

No CLP prevention statements

#### **[Response]:**

No CLP response statements

#### **[Storage]:**

No CLP storage statements

#### **[Disposal]:**

No CLP disposal statements

See Technical Data Sheet.

### 2.3. Other hazards

This product contains no PBT/vPvB chemicals.

## 3. Composition/information on ingredients

If the product contains substances that present a health hazard within the meaning of the Dangerous Substances Directive 67/548/EC, or have occupational exposure limits detailed in EH40, these substances are listed below.

Ingredient/Chemical Designations	Weight %	EC No. 1272/2008 Classification*	Notes
<b>Chitosan</b> CAS Number: 0009012-76-4 EC No. Index No.:	50 - 75	Not Classified	[1]
<b>Hyaluronic acid, sodium salt</b> CAS Number: 0009067-32-7 EC No. Index No.:	25 - 50	Not Classified	[1]
<b>Dextran</b> CAS Number: 0009004-54-0 EC No. Index No.:	10 - 25	Not Classified	[1]
<b>.alpha.-D-Glucopyranose, monohydrate</b> CAS Number: 0014431-43-7 EC No. Index No.:	1.0 - 10	Not Classified	[1]

<sup>^</sup>CLP 31 Reference EC No. 1272/2008 1.1.3.1. Notes relating to the identification, classification and labelling of substances (Table 3.1).

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

\*The full texts of the phrases are shown in Section 16.

## 4. First aid measures

### 4.1. Description of first aid measures

**General**

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

**Inhalation**

If dry powder component is inhaled, remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, provide artificial respiration. Immediately seek medical attention.

**Eyes**

Do not let the victim rub his/her eye(s). Hold eyes apart and flush eyes with water for at least 1-5 minutes. Seek medical attention immediately.

**Skin**

Do not let the victim rub his/her eye(s). Hold eyes apart and flush eyes with water for at least 15 minutes. Seek medical attention immediately.

**Ingestion**

Immediately contact a Poison Center or doctor/physician. If swallowed, induce vomiting if directed by medical personnel. Never give anything by mouth to an unconscious person.

### 4.2. Most important symptoms and effects, both acute and delayed

**Overview**

Eye Contact: Contact with eyes may cause irritation.

Skin Contact: May cause irritation or rash.

Inhalation: In its final form, inhalation is not a likely route of exposure, but health effects may be similar to those from ingestion.

Ingestion: Accidental ingestion in an occupational scenario is not a likely route of exposure. However, in the event of ingestion, health effects are expected to include nausea and gastrointestinal disturbance.

## 5. Fire-fighting measures

### 5.1. Extinguishing media

Product is non-flammable. However, use an appropriate media including water spray, dry powder, foam, or carbon dioxide for the surrounding fire.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.

### 5.3. Advice for fire-fighters

Wear personal protective equipment to prevent contact with skin and eyes.

Product is non-flammable, but when heated to decomposition it may emit acrid smoke and irritating fumes.

ERG Guide No. ----

## 6. Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

### 6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

### 6.3. Methods and material for containment and cleaning up

The following spill response instructions only apply to bulk quantities of the material. Report emergency situations immediately. Non-essential personnel should be evacuated from the affected area. Spills should be cleaned up in a manner that minimizes exposure to personnel and to the environment. Personnel involved in the clean up of spills should wear the appropriate gloves and eye protection. Clean spill area thoroughly with soap and water. Collect wash with absorbent material and transfer all waste to a labeled container for disposal. Observe all applicable regulations when disposing of this substance.

## 7. Handling and storage

### 7.1. Precautions for safe handling

In a manufacturing setting or other situation where exposure to the substance may occur wear appropriate personal protective equipment. Use good personal hygiene - wash hands and exposed skin thoroughly with soap and water after handling. Remove any contaminated clothing and clean before reuse. Properly dispose of contaminated belts

and shoes and other items that cannot be decontaminated.

Keep away from heat and flame.

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

Handle containers carefully to prevent damage and spillage.

Incompatible materials: No data available.

When not in use, store in a cool, dry, well-ventilated area. Store dry blend at -20 C and hydration fluid at 4 C in closed containers that are labeled in accordance with OSHA's Hazard Communication Standard [29 CFR 1910.1200]. Keep this drug out of the reach of children.

### 7.3. Specific end use(s)

No data available.

## 8. Exposure controls and personal protection

### 8.1. Control parameters

#### Exposure

CAS No.	Ingredient	Source	Value
0009004-54-0	Dextran	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0009012-76-4	Chitosan	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0009067-32-7	Hyaluronic acid, sodium salt	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0014431-43-7	.alpha.-D-Glucopyranose, monohydrate	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

#### Carcinogen Data

CAS No.	Ingredient	Source	Value
0009004-54-0	Dextran	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0009012-76-4	Chitosan	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

0009067-32-7	Hyaluronic acid, sodium salt	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0014431-43-7	.alpha.-D-Glucopyranose, monohydrate	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

## 8.2. Exposure controls

### Respiratory

If exposure limits are exceeded, approved respiratory protection should be worn. Seek professional assistance for proper selection of respiratory protection.

### Eyes

Wear appropriate chemical safety goggles, safety glasses or face shield as described by OSHA's eye and face protection regulations in 29 CFR 1910.133. Have eyewash stations available where eye contact can occur.

### Skin

Avoid unintended skin contact. Wear gloves impervious to conditions of use. Additional protection may be necessary to prevent skin contact including the use of a face shield, boots, or coveralls. A safety shower should be located in the work area.

### Engineering Controls

Under normal conditions normally required. However in a manufacturing environment, the use of local ventilation is recommended to control emissions near the source. Provide mechanical ventilation for confined spaces. If user operations generate aerosols, use ventilation to keep exposure to airborne contaminants below the exposure limit.

### Other Work Practices

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

## 9. Physical and chemical properties

<b>Appearance</b>	Clear liquid, white powder, hydrogel when combined
<b>Odor</b>	Not provided
<b>Odor threshold</b>	Not determined
<b>pH</b>	Not Measured
<b>Melting point / freezing point</b>	Not Measured
<b>Initial boiling point and boiling range</b>	Not Measured
<b>Flash Point</b>	Not Measured
<b>Evaporation rate (Ether = 1)</b>	Not Measured
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Upper/lower flammability or explosive limits</b>	<b>Lower Explosive Limit:</b> Not Measured <b>Upper Explosive Limit:</b> Not Measured
<b>Vapor pressure (Pa)</b>	Not Measured
<b>Vapor Density</b>	Not Measured
<b>Specific Gravity</b>	Not Measured
<b>Solubility in Water</b>	Not Measured
<b>Partition coefficient n-octanol/water (Log Kow)</b>	Not Measured

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Auto-ignition temperature Not Measured  
 Decomposition temperature Not Measured  
 Viscosity (cSt) Not Measured

**9.2. Other information**

No other relevant information.

## 10. Stability and reactivity

**10.1. Reactivity**

Hazardous Polymerization will not occur.

**10.2. Chemical stability**

Stable under normal circumstances.

**10.3. Possibility of hazardous reactions**

No data available.

**10.4. Conditions to avoid**

No data available.

**10.5. Incompatible materials**

No data available.

**10.6. Hazardous decomposition products**

No hazardous decomposition data available.

## 11. Toxicological information

**Acute toxicity**

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Chitosan - (9012-76-4)	No data available	No data available	No data available	No data available	No data available
Hyaluronic acid, sodium salt - (9067-32-7)	No data available	No data available	No data available	No data available	No data available
Dextran - (9004-54-0)	No data available	No data available	No data available	No data available	No data available
.alpha.-D-Glucopyranose, monohydrate - (14431-43-7)	No data available	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

<b>Classification</b>	<b>Category</b>	<b>Hazard Description</b>
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Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

## 12. Ecological information

### 12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

### Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Chitosan - (9012-76-4)	Not Available	Not Available	Not Available
Hyaluronic acid, sodium salt - (9067-32-7)	Not Available	Not Available	Not Available
Dextran - (9004-54-0)	Not Available	Not Available	Not Available
.alpha.-D-Glucopyranose, monohydrate - (14431-43-7)	Not Available	Not Available	Not Available

### 12.2. Persistence and degradability

There is no data available on the preparation itself.

### 12.3. Bioaccumulative potential

Not Measured

### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

### 12.6. Other adverse effects

No data available.

### 13. Disposal considerations

**13.1. Waste treatment methods**

Observe all federal, state and local regulations when disposing of this substance.

### 14. Transport information

	<b>DOT (Domestic Surface Transportation)</b>	<b>IMO / IMDG (Ocean Transportation)</b>	<b>ICAO/IATA</b>
<b>14.1. UN number</b>	Not Applicable	Not Regulated	Not Regulated
<b>14.2. UN proper shipping name</b>	Not Regulated	Not Regulated	Not Regulated
<b>14.3. Transport hazard class(es)</b>	<b>DOT Hazard Class:</b> Not Applicable	<b>IMDG:</b> Not Applicable <b>Sub Class:</b> Not Applicable	<b>Air Class:</b> Not Applicable
<b>14.4. Packing group</b>	Not Applicable	Not Applicable	Not Applicable
<b>14.5. Environmental hazards</b>			
<b>IMDG</b>	Marine Pollutant: No		
<b>14.6. Special precautions for user</b>			
	No further information		

### 15. Regulatory information

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**EU Legislation**

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

**National Legislation**

None noted.



## 16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

**This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.**

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