

Safety Data Sheet

Cell-Mate3D™ RNA Extraction Kit

SDS Revision Date:

22/03/2017

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Identity Cell-Mate3D™ RNA Extraction Kit

Alternate Names Cell-Mate3D™ RNA Extraction Kit

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

2. Hazard identification of the product

The hazards identified with this kit are those associated with substances found within the following components.

Kit Components:

Extraction buffer contained in 10 ml vial

Dextran sulfate contained in 2 ml vial

7M Lithium chloride contained in 2 ml vial

1.33 M Lithium chloride contained in 30 ml vial

4M GuHCl in sodium acetate contained in 10 ml vial

Chloroform – isoamyl alcohol (24:1 v/v) in 60 ml bottle

Glass Milk in 2 ml vial

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Extraction buffer contained in 10 ml vial

Skin Irrit. 2;H315	Causes skin irritation.
Eye Irrit. 2;H319	Causes serious eye irritation.
Aquatic Acute 1;H400	Very toxic to aquatic life.
Aquatic Chronic 3;H412	Harmful to aquatic life with long lasting effects.

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Dextran sulfate contained in 2 ml vial

Skin Irrit. 2;H315 Causes skin irritation.
Eye Irrit. 2;H319 Causes serious eye irritation.
STOT SE 3;H335 May cause respiratory irritation.

7M Lithium chloride contained in 2 ml vial

Acute Tox. 4;H302 Harmful if swallowed.
Skin Irrit. 2;H315 Causes skin irritation.
Eye Irrit. 2;H319 Causes serious eye irritation.
Aquatic Chronic 2;H411 Toxic to aquatic life with long lasting effects.

1.33 M Lithium chloride contained in 30 ml vial

Acute Tox. 4;H302 Harmful if swallowed.
Skin Irrit. 2;H315 Causes skin irritation.
Eye Irrit. 2;H319 Causes serious eye irritation

4M GuHCl in sodium acetate contained in 10 ml vial

Acute Tox. 4;H302 Harmful if swallowed.
Skin Irrit. 2;H315 Causes skin irritation.
Eye Irrit. 2;H319 Causes serious eye irritation.

Chloroform – isoamyl alcohol (24:1 v/v) in 60 ml bottle

Acute Tox. 4;H302 Harmful if swallowed.
Acute Tox. 3;H331 Toxic if inhaled.
Skin Irrit. 2;H315 Causes skin irritation.
Eye Irrit. 2;H319 Causes serious eye irritation.
Carc. 2;H351 Suspected of causing cancer.
Repr. 2;H361D Suspected of damaging the unborn child.
STOT RE 1;H372 Causes damage to organs through prolonged or repeated exposure.

Glass Milk in 2 ml vial

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

Extraction buffer contained in 10 ml vial



Warning

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H400 Very toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.

[Prevention]:

P264 Wash thoroughly after handling.

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P273 Avoid release to the environment.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P321 Specific treatment (see information on this label).

P332+313 If skin irritation occurs: Get medical advice / attention.

P337+313 If eye irritation persists: Get medical advice / attention.

P362 Take off contaminated clothing and wash before reuse.

P391 Collect spillage.

[Storage]:

No CLP storage statements

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

Dextran sulfate contained in 2 ml vial



Warning

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

[Prevention]:

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P321 Specific treatment (see information on this label).

P332+313 If skin irritation occurs: Get medical advice / attention.

P337+313 If eye irritation persists: Get medical advice / attention.

P362 Take off contaminated clothing and wash before reuse.

[Storage]:

P403+233 Store in a well ventilated place. Keep container tightly closed.

P405 Store locked up.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

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7M Lithium chloride contained in 2 ml vial



Warning

H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

[Prevention]:

P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves / eye protection / face protection.

[Response]:

P301+312 IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell.

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P312 Call a POISON CENTER or doctor / physician if you feel unwell.

P321 Specific treatment (see information on this label).

P330 IF SWALLOWED: Rinse mouth.

P332+313 If skin irritation occurs: Get medical advice / attention.

P337+313 If eye irritation persists: Get medical advice / attention.

P362 Take off contaminated clothing and wash before reuse.

P391 Collect spillage.

[Storage]:

No CLP storage statements

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

1.33 M Lithium chloride contained in 30 ml vial

Warning

H412 Harmful to aquatic life with long lasting effects.

[Prevention]:

P273 Avoid release to the environment.

[Response]:

P332+313 If skin irritation occurs: Get medical advice / attention.

[Storage]:

No CLP storage statements

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

See Technical Data Sheet.

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4M GuHCl in sodium acetate contained in 10 ml vial



Warning

H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

[Prevention]:

P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves / eye protection / face protection.

[Response]:

P301+312 IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell.
P302+352 IF ON SKIN: Wash with plenty of soap and water.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P312 Call a POISON CENTER or doctor / physician if you feel unwell.

P321 Specific treatment (see information on this label).

P330 IF SWALLOWED: Rinse mouth.

P332+313 If skin irritation occurs: Get medical advice / attention.

P337+313 If eye irritation persists: Get medical advice / attention.

P362 Take off contaminated clothing and wash before reuse.

[Storage]:

No CLP storage statements

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

Chloroform – isoamyl alcohol (24:1 v/v) in 60 ml bottle



Danger

H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H351 Suspected of causing cancer.
H361d Suspected of damaging the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.

[Prevention]:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P301+312 IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell.

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P308+313 IF exposed or concerned: Get medical advice / attention.

P311 Call a POISON CENTER or doctor / physician.

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P314 Get Medical advice / attention if you feel unwell.

P321 Specific treatment (see information on this label).

P330 IF SWALLOWED: Rinse mouth.

P332+313 If skin irritation occurs: Get medical advice / attention.

P337+313 If eye irritation persists: Get medical advice / attention.

P362 Take off contaminated clothing and wash before reuse.

[Storage]:

P403+233 Store in a well ventilated place. Keep container tightly closed.

P405 Store locked up.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

Glass Milk in 2 ml vial

[Prevention]:

No CLP prevention statements

[Response]:

No CLP response statements

[Storage]:

No CLP storage statements

[Disposal]:

No CLP disposal statements

2.3. Other hazards

This product contains no PBT/vPvB chemicals.

3. Composition/information on ingredients

If the product contains substances that present a hazard according to Regulation (EC) No. 1272/2008 [CLP/GHS] (as amended by (EU) 2015/830), they are listed below.

Extraction buffer contained in 10 ml vial

Ingredient/Chemical Designations	Weight %	EC No. 1272/2008 Classification*	Notes
Sodium chloride CAS Number: 0007647-14-5 EC No. 231-598-3	10 - 25	Not Classified	[1]
Tromethamine CAS Number: 0000077-86-1 EC No. 201-064-4	10 - 25	Skin Irrit. 2;H315 Eye Irrit. 2;H319 STOT SE 3;H335	[1]
Glycine, N,N'-1,2-ethanediybis[N-(carboxymethyl)-, disodium salt CAS Number: 0000139-33-3	5 - 10	Skin Irrit. 2;H315 Eye Irrit. 2;H319 Acute Tox. 4;H302 STOT SE 3;H335	[1]
Hexadecanaminium, N,N,N-trimethyl-, bromide CAS Number: 0000057-09-0	1 - 5	Acute Tox. 1;H300 Acute Tox. 4;H302 Skin Irrit. 2;H315 Eye Irrit. 2;H319 Repr. 2;H361 STOT SE 1;H370 Aquatic Acute 1;H400 Aquatic Chronic 1;H410	[1]

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Polyvinyl pyrrolidone CAS Number: 0009003-39-8 EC No. 618-363-4	1 - 5	Not Classified	[1]
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Dextran sulfate contained in 2 ml vial

Ingredient/Chemical Designations	Weight %	EC No. 1272/2008 Classification*	Notes
Dextran, hydrogen sulfate, sodium salt CAS Number: 0009011-18-1	100	Skin Irrit. 2;H315 Eye Irrit. 2;H319 STOT SE 3;H335	[1]

7M Lithium chloride contained in 2 ml vial

Ingredient/Chemical Designations	Weight %	EC No. 1272/2008 Classification*	Notes
Lithium chloride CAS Number: 0007447-41-8 EC No. 231-212-3	25 - 50	Acute Tox. 4;H302 Skin Irrit. 2;H315 Eye Irrit. 2;H319	[1]

1.33 M Lithium chloride contained in 30 ml vial

Ingredient/Chemical Designations	Weight %	EC No. 1272/2008 Classification*	Notes
Lithium chloride CAS Number: 0007447-41-8 EC No. 231-212-3	5 - 10	Acute Tox. 4;H302 Skin Irrit. 2;H315 Eye Irrit. 2;H319	[1]

4M GuHCl in sodium acetate contained in 10 ml vial

Ingredient/Chemical Designations	Weight %	EC No. 1272/2008 Classification*	Notes
Guanidine, monohydrochloride CAS Number: 0000050-01-1 EC No. 200-002-3 Index No.: 607-148-00-0	25 - 50	Acute Tox. 4;H302 Eye Irrit. 2;H319 Skin Irrit. 2;H315	[1]
Acetic acid CAS Number: 0000064-19-7 EC No. 200-580-7 Index No.: 607-002-00-6	1 - 5	Flam. Liq. 3;H226 Skin Corr. 1B; H314: 25% ≤ C < 90% Eye Irrit. 2; H319: 10% ≤ C < 25% Skin Corr. 1A; H314: C ≥ 90% Skin Irrit. 2; H315: 10% ≤ C < 25%	B ^{CLP} 3.1 [1][2]

Chloroform – isoamyl alcohol (24:1 v/v) in 60 ml bottle

Ingredient/Chemical Designations	Weight %	EC No. 1272/2008 Classification*	Notes
Chloroform CAS Number: 0000067-66-3 EC No. 200-663-8 Index No.: 602-006-00-4	75 - 100	Carc. 2;H351 Repr. 2;H361D Acute Tox. 3;H331 Acute Tox. 4;H302 STOT RE 1;H372 Eye Irrit. 2;H319 Skin Irrit. 2;H315	[1][2]

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Butanol, 3-methyl- CAS Number: 0000123-51-3 EC No.	1 - 5	Flam. Liq. 3;H226 Skin Irrit. 2;H315 Eye Irrit. 2;H319 Acute Tox. 4;H332 STOT SE 3;H335	[1][2]
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Glass Milk in 2 ml vial

Ingredient/Chemical Designations	Weight %	EC No. 1272/2008 Classification*	Notes
Quartz (non respirable) CAS Number: 0014808-60-7 EC No. 238-878-4	25 - 50	Not classified	[1]

[^]CLP³¹ 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	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
Eye	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
Ingestion	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

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

Overview	No specific symptom data available. Possible cancer hazard. Contains an ingredient which may cause cancer based on animal data (See Section 3 and Section 15 for each ingredient). Risk of cancer depends on duration and level of exposure. See section 2 for further details.
Inhalation	Harmful if inhaled.
Eye	Causes serious eye irritation.
Skin	Causes skin irritation.
Ingestion	May be harmful if swallowed.

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

Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. Advice for fire-fighters

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

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 cleanup 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

Handle containers carefully to prevent damage and spillage.

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 disposed of contaminated belts and shoes and other items that cannot be decontaminated.

Keep away from heat and flame.

See section 2 for further details. - [Prevention]:

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7.2. Conditions for safe storage, including any incompatibilities

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

Incompatible materials: No data available.

See section 2 for further details. - [Storage]:

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
0000050-01-1	Guanidine, monohydrochloride	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0000057-09-0	Hexadecanaminium, N,N,N-trimethyl-, bromide	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0000067-66-3	Chloroform	OSHA	C 50 ppm (240 mg/m3)
		ACGIH	TWA: 2 ppm R, 2B
		NIOSH	Ca ST 2 ppm (9.78 mg/m3) [60-minute]
		Supplier	No Established Limit
0000077-86-1	Tromethamine	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0007447-41-8	Lithium chloride	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0007647-14-5	Sodium chloride	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0009011-18-1	Dextran, hydrogen sulfate, sodium salt	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

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0014808-60-7	Quartz	OSHA	PEL 50 µg/m ³
		ACGIH	TWA: 0.025 mg/m ³ A1, 1
		NIOSH	0.05 mg/m ³ TWA (respirable)
		Supplier	No Established Limit

8.2. Exposure controls

- Respiratory** If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.
- Eyes** Wear safety glasses with side shields to protect the eyes. An eye wash station is suggested as a good workplace practice.
- Skin** Wear PVC or rubber gloves to keep skin contact to a minimum. Refer to the manufacturer's recommendations regarding the suitability of any gloves used.
- Engineering Controls** Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.
- 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.

See section 2 for further details.

9. Physical and chemical properties

Appearance	Components come packaged as a kit. Odor/appearance vary according to individual components.
Odor	Not Available
Odor threshold	Not determined
pH	Not Measured
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	Not Measured
Flash Point	Not Measured
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not Measured Upper Explosive Limit: Not Measured
Vapor pressure (Pa)	Not Measured
Vapor Density	Not Measured
Specific Gravity	Not Measured
Solubility in Water	Not Measured
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured

9.2. Other information

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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

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

11. Toxicological information

Acute toxicity

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).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapour LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Guanidine, monohydrochloride - (50-01-1)	No data available	No data available	No data available	No data available	No data available
Hexadecanaminium, N,N,N-trimethyl-, bromide - (57-09-0)	No data available	No data available	No data available	No data available	No data available
Chloroform - (67-66-3)	695.00, Rat - Category: 4	20,000.00, Rabbit - Category: NA	47.702, Rat - Category: NA	No data available	No data available
Tromethamine - (77-86-1)	No data available	No data available	No data available	No data available	No data available
Lithium chloride - (7447-41-8)	526.00, Rat - Category: 4	>2,000.00, Rat - Category: 5	No data available	No data available	No data available
Sodium chloride - (7647-14-5)	3,550.00, Rat - Category: 5	10,000.00, Rabbit - Category: NA	No data available	No data available	No data available
Dextran, hydrogen sulfate, sodium salt - (9011-18-1)	No data available	No data available	No data available	No data available	No data available
Quartz - (14808-60-7)	No data available	No data available	No data available	No data available	No data available

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Carcinogen Data

CAS No.	Ingredient	Source	Value
0000050-01-1	Guanidine, monohydrochloride	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;
0000057-09-0	Hexadecanaminium, N,N,N-trimethyl-, bromide	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;
0000067-66-3	Chloroform	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: Yes
		IARC	Group 1: No; Group 2a: No; Group 2b: Yes; Group 3: No; Group 4: No;
0000077-86-1	Tromethamine	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;
0007447-41-8	Lithium chloride	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;
0007647-14-5	Sodium chloride	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;
0009011-18-1	Dextran, hydrogen sulfate, 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;
0014808-60-7	Quartz	OSHA	Select Carcinogen: No
		NTP	Known: Yes; Suspected: No
		IARC	Group 1: Yes; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
Classification	Category	Hazard Description	
Acute toxicity (oral)	5	May be harmful if swallowed. (Not adopted by EU CLP)	
Acute toxicity (dermal)	---	Not Applicable	
Acute toxicity (inhalation)	4	Harmful if inhaled.	
Skin corrosion/irritation	2	Causes skin irritation.	
Serious eye damage/irritation	2	Causes serious eye irritation.	
Respiratory sensitization	---	Not Applicable	
Skin sensitization	---	Not Applicable	
Germ cell mutagenicity	---	Not Applicable	
Carcinogenicity	1A	May cause cancer.	
Reproductive toxicity	2	Suspected of damaging the unborn child.	
STOT-single exposure	---	Not Applicable	
STOT-repeated exposure	1	Causes damage to organs through prolonged or repeated exposure.	

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Aspiration hazard	---	Not Applicable
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12. Ecological information

12.1. Toxicity

Very toxic to aquatic life.

Harmful to aquatic life with long lasting effects.

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	3hr IC50 Bacteria mg/l	Biodegradability %
Guanidine, monohydrochloride - (50-01-1)	Not Available	Not Available	Not Available	---	0.00
Hexadecanaminium, N,N,N-trimethyl-, bromide - (57-09-0)	0.26, Pimephales promelas	0.058, Daphnia magna	0.064 (72 hr), Algae	---	82.00
Chloroform - (67-66-3)	13.30, Lepomis macrochirus	29.00, Daphnia magna	13.30 (72 hr), Chlamydomonas reinhardtii	3,200.00	0.00
Tromethamine - (77-86-1)	Not Available	Not Available	Not Available	---	0.00
Lithium chloride - (7447-41-8)	17.00, Ptychocheilus lucius	1.20, Daphnia magna	Not Available	---	333.00
Sodium chloride - (7647-14-5)	1,100.00, Freshwater Fish	3,310.00, Daphnia magna	Not Available	35,000.00	0.00
Dextran, hydrogen sulfate, sodium salt - (9011-18-1)	Not Available	Not Available	Not Available	---	0.00
Quartz - (14808-60-7)	Not Available	Not Available	Not Available	---	0.00

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.

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13. Disposal considerations

13.1. Waste treatment methods

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

14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	UN1888	UN1888	UN1888
14.2. UN proper shipping name	UN1888, Chloroform, 6.1, III	Chloroform	Chloroform
14.3. Transport hazard class(es)	DOT Hazard Class: 6.1	IMDG: 6.1 Sub Class: Not Applicable	Air class: 6.1
14.4. Packing group	III	III	III
14.5. Environmental hazards			
IMDG	Marine Pollutant: Yes; (Hexadecanaminium, N,N,N-trimethyl-, bromide)		
14.6. Special precautions for user	No further information		

15. Regulatory information

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

EU Legislation

REGULATION (EU) 2015/830 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

National Legislation

None noted.

16. Other information

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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:

H300 Fatal if swallowed.

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H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H361 Suspected of damaging fertility or the unborn child.

H361d Suspected of damaging the unborn child.

H370 Causes damage to organs.

H372 Causes damage to organs through prolonged or repeated exposure.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Bioactive Regenerative Therapeutics, Inc. (BRTI, Inc.) believes that the information contained in this Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, express or implied. The information contained herein is designated only as guidance for safe handling and storage of the substance and is not a specification nor does it guarantee any specific properties. Only competent personnel, within a controlled environment, should handle all chemicals. Bioactive Regenerative Therapeutics, Inc. shall not be held liable for any loss, injury or damage from contact with the product.

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