

## Safety Data Sheet

**STEMDIFF<sup>TM</sup> CARDIOMYOCYTE FREEZING MEDIUM****EFFECTIVE DATE: 2017-04-26**

### 1 Product and Company Identification

- 1.1 Product Name:** STEMdiff<sup>TM</sup> Cardiomyocyte Freezing Medium
- 1.2 Catalog Number:** 05030
- 1.3 Product Use:** Cell Culture
- 1.4 Manufacturer/Supplier:** STEMCELL Technologies  
Suite 500-1618 Station Street  
Vancouver, British Columbia V6A 1B6 Canada
- 1.5 In Case of Emergency Call:** 1-800-667-0322

### 2 Hazards Identification

- 2.1 Classification of the substance or mixture**  
Not a hazardous substance or mixture.
- 2.2 Label elements**  
Not a hazardous substance or mixture.
- 2.3 Other hazards** None

### 3 Composition / Information on Ingredients

#### 3.1 Substances

Hazardous Components (Chemical Name)	CAS #	Concentration	EC #
Dimethyl sulfoxide	67-68-5	10%	200-664-3

### 4 First Aid Measures

#### 4.1 Description of first aid measures

##### 4.1.1 If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

##### 4.1.2 In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

##### 4.1.3 In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

##### 4.1.4 If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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No data available

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**5 Fire Fighting Measures****5.1 Extinguishing Media****5.1.1 Suitable Extinguishing Media**

Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

**5.1.2 Unsuitable Extinguishing Media**

No data available

**5.2 Special hazards arising from the substance or mixture****5.2.1 Flammable Properties and Hazards**

No data available

**5.2.2 Flash Pt**

No data available

**5.2.3 Autoignition Pt**

No data available

**5.2.4 Explosive Limits**

LEL: No data available

UEL: No data available

**5.2.5 Hazardous Combustion Products**

Hazardous decomposition products formed under fire conditions - Carbon oxides, Sulphur oxides

**5.3 Fire Fighting Instructions**

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

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**6 Accidental Release Measures****6.1 Personal precautions, protective equipment and emergency procedures**

Avoid breathing vapors, mist or gas.

For personal protection see section 8.

**6.2 Environmental precautions**

Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up**

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

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**7 Handling and Storage****7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

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### 7.2 Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

## 8 Exposure Controls/Personal Protection

### 8.1 Exposure limits

#### Components with workplace control parameters

Component	CAS #	Value	Control parameters	Basis
dimethyl sulfoxide	67-68-5	TWA	250.000000 ppm	USA. Workplace Environmental Exposure Levels (WEEL)

### 8.2 Engineering controls

Use mechanical exhaust or laboratory fumehood to avoid exposure.

### 8.3 Personal protective equipment

#### 8.3.1 Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### 8.3.2 Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### 8.3.3 Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### 8.3.4 General hygiene considerations

General industrial hygiene practice.

#### 8.3.5 Environmental exposure controls

No data available

## 9 Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

Appearance	Light orange-yellow liquid
Odour	No data available
Odour threshold	No data available
pH	No data available
Melting point/freezing point	No data available
Boiling point/boiling range	No data available

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Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Solubility	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

**9.2 Other information**

No data available

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**10 Stability and Reactivity**

<b>10.1 Reactivity</b>	No data available
<b>10.2 Chemical stability</b>	Stable under recommended storage conditions.
<b>10.3 Possibility of hazardous reactions</b>	No data available
<b>10.4 Conditions to avoid</b>	Exposure to moisture may affect product quality.
<b>10.5 Incompatible materials</b>	Strong oxidizing agents
<b>10.6 Hazardous decomposition products</b>	Hazardous decomposition products formed under fire conditions - Carbon oxides, Sulphur oxides

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**11 Toxicological Information**

<b>11.1 Acute toxicity</b>	
Oral:	No data available
Inhalation:	No data available
Dermal:	No data available
Other:	No data available
<b>11.2 Skin corrosion/irritation</b>	No data available
<b>11.3 Serious eye damage/eye irritation</b>	No data available
<b>11.4 Respiratory and/or skin sensitization</b>	No data available
<b>11.5 Germ cell mutagenicity</b>	No data available
<b>11.6 Carcinogenicity</b>	

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- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**11.7 Reproductive toxicity**

No data available

**11.8 Specific target organ toxicity - single exposure**

No data available

**11.9 Specific target organ toxicity - repeated exposure**

No data available

**11.10 Aspiration hazard**

No data available

**11.11 Potential health effects**

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion: May be harmful if swallowed.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

**11.12 Signs and symptoms of exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**11.13 RTECS #** No data available

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**12 Ecological Information**

- |   |                   |
|---|-------------------|
| <b>12.1 Toxicity</b>                      | No data available |
| <b>12.2 Persistence and degradability</b> | No data available |
| <b>12.3 Bioaccumulative potential</b>     | No data available |
| <b>12.4 Mobility in soil</b>              | No data available |
| <b>12.5 Other adverse effects</b>         | No data available |

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**13 Disposal Considerations****13.1 Waste disposal method**

Dispose in accordance with local, provincial/state, and federal regulations. Offer surplus and non-recyclable solutions to a licensed disposal company.

**13.2 Contaminated packaging**

Dispose of as unused product.

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**14 Transport Information**

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<b>14.1 UN number</b>	No data available
<b>14.2 UN proper shipping name</b>	DOT Not dangerous goods ADR/RID Not dangerous goods IMDG Not dangerous goods IATA Not dangerous goods
<b>14.3 Transport hazard class(es)</b>	No data available
<b>14.4 Packing group</b>	No data available
<b>14.5 Environmental hazards</b>	No data available
<b>14.6 Special precautions</b>	No data available

### 15 Regulatory Information

**15.1 USA**
**SARA 311/312:**

Fire Hazard, Chronic Health Hazard (dimethylsulfoxide)

**Pennsylvania Right To Know Components**

Component	CAS #	Revision Date
dimethyl sulfoxide	67-68-5	2007-03-01

**New Jersey Right To Know Components**

Component	CAS #	Revision Date
dimethyl sulfoxide	67-68-5	2007-03-01

**15.2 EU**

This SDS was prepared in accordance with Regulation (EC) No.1272/2008 and European Directive 67/548/EEC as amended.

**15.3 Canada**

Not WHMIS controlled

This SDS was prepared in accordance with Hazardous Products Regulations (HPR) and WHMIS 2015.

### 16 Other Information

**16.1 Prepared by:** Quality Control, STEMCELL Technologies Inc.

**16.2 Revision:** 1\_0\_0

**16.3 Notice:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. STEMCELL Technologies Inc. shall not be held liable for any damage resulting from handling or from contact with the product. The information contained in this Safety Data Sheet (SDS) is current as of the Effective Date shown in this document and may be subject to amendment by STEMCELL Technologies Inc.

**16.4 Disclaimer:** **THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.**