



# SAFETY DATA SHEET

100-0231 - STEMdiff™ Lung Progenitor Supplement 1 (100X)

Revision Date 07-Jul-2020

Revision Number 1

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

**Product Name** STEMdiff™ Lung Progenitor Supplement 1 (100X)

### Other means of identification

**Catalog Number** 100-0231

**Document Number** 10000008268

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended Use** Laboratory reagent

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

#### **Manufacturer/Supplier**

STEMCELL Technologies Canada Inc.  
Suite 500 - 1618 Station Street  
Vancouver, British Columbia V6A 1B6 Canada

### Emergency telephone number

**Emergency Telephone** 1-800-667-0322

## 2. HAZARDS IDENTIFICATION

### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

|                   |            |
|-------------------|------------|
| Flammable liquids | Category 4 |
|-------------------|------------|

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

**Warning**

**Hazard statements**



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Combustible liquid

**Appearance** Clear **Physical state** Liquid **Odor** No information available

**Precautionary Statements - Prevention**

Keep away from flames and hot surfaces. - No smoking  
Wear protective gloves/eye protection/face protection

**Precautionary statements - Response**

In case of fire: Use CO2, dry chemical, or foam to extinguish

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep cool

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other Information**

Not applicable

**Unknown acute toxicity** 99.95358 % of the mixture consists of ingredient(s) of unknown toxicity

1E-05 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

1E-05 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

99.95358 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

99.95358 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

99.95358 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance**

Not applicable.

**Mixture**

| Chemical name             | CAS No. | Weight-% |
|---------------------------|---------|----------|
| Dimethyl Sulfoxide (DMSO) | 67-68-5 | >99      |

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

## 4. FIRST AID MEASURES



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### Description of first aid measures

|   |   |
|---|---|
| <b>Inhalation</b>                         | Remove to fresh air.  |
| <b>Eye contact</b>                        | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing.            |
| <b>Skin contact</b>                       | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.   |
| <b>Ingestion</b>                          | Clean mouth with water and drink afterwards plenty of water.  |
| <b>Self-protection of the first aider</b> | Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). |

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

**Symptoms** No information available.

### Indication of any immediate medical attention and special treatment needed

**Note to physicians** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

|   |  |
|---|--|
| <b>Suitable Extinguishing Media</b>                   | Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.   |
| <b>Unsuitable extinguishing media</b>                 | CAUTION: Use of water spray when fighting fire may be inefficient.   |
| <b>Specific hazards arising from the chemical</b>     | Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray.        |
| <b>Explosion data</b>                                 |  |
| <b>Sensitivity to Mechanical Impact</b>               | None.  |
| <b>Sensitivity to Static Discharge</b>                | Yes.   |
| <b>Special protective equipment for fire-fighters</b> | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. |

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Evacuate personnel to safe areas. Use personal protective equipment as required. See



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section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk through spilled material.

## Environmental precautions

**Environmental precautions** Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so.

## Methods and material for containment and cleaning up

**Methods for containment** Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far ahead of liquid spill for later disposal.

**Methods for cleaning up** Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Use personal protection equipment. Do not breathe vapor or mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Use with local exhaust ventilation.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Store in accordance with information listed on the Product Information Sheet (PIS). Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure Limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### Appropriate engineering controls



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**Engineering controls**                      Showers  
    Eyewash stations  
    Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**                      Tight sealing safety goggles.

**Skin and body protection**                No special protective equipment required.

**Respiratory protection**                    No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations**        Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

**Physical state**                                Liquid  
**Appearance**                                Clear  
**Color**                                         No information available  
**Odor**                                         No information available  
**Odor threshold**                            No information available

| <b><u>Property</u></b>                | <b><u>Values</u></b> | <b><u>Remarks • Method</u></b> |
|---------------------------------------|----------------------|--------------------------------|
| <b>pH</b>                             | No data available    | None known                     |
| <b>Melting point / freezing point</b> | No data available    | None known                     |
| <b>Boiling point / boiling range</b>  | No data available    | None known                     |
| <b>Flash point</b>                    | 87 °C / 189 °F       |                                |
| <b>Evaporation rate</b>               | No data available    | None known                     |
| <b>Flammability (solid, gas)</b>      | No data available    | None known                     |
| <b>Flammability Limit in Air</b>      |                      | None known                     |
| <b>Upper flammability limit:</b>      | No data available    |                                |
| <b>Lower flammability limit:</b>      | No data available    |                                |
| <b>Vapor pressure</b>                 | No data available    | None known                     |
| <b>Vapor density</b>                  | No data available    | None known                     |
| <b>Relative density</b>               | No data available    | None known                     |
| <b>Water solubility</b>               | No data available    | None known                     |
| <b>Solubility in other solvents</b>   | No data available    | None known                     |
| <b>Partition coefficient</b>          | No data available    | None known                     |
| <b>Autoignition temperature</b>       | No data available    | None known                     |
| <b>Decomposition temperature</b>      | No data available    | None known                     |



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|                             |                          |            |
|-----------------------------|--------------------------|------------|
| <b>Kinematic viscosity</b>  | No data available        | None known |
| <b>Dynamic viscosity</b>    | No data available        | None known |
| <b>Explosive properties</b> | No information available |            |
| <b>Oxidizing properties</b> | No information available |            |

**Other Information**

|                          |                          |
|--------------------------|--------------------------|
| <b>Softening point</b>   | No information available |
| <b>Molecular weight</b>  | No information available |
| <b>Molecular formula</b> | No information available |
| <b>VOC Content (%)</b>   | No information available |
| <b>Liquid Density</b>    | No information available |
| <b>Bulk density</b>      | No information available |

## 10. STABILITY AND REACTIVITY

|   |   |
|---|---|
| <b>Reactivity</b>                         | No information available.                 |
| <b>Chemical stability</b>                 | Stable under normal conditions.           |
| <b>Possibility of hazardous reactions</b> | None under normal processing.             |
| <b>Conditions to avoid</b>                | Heat, flames and sparks.                  |
| <b>Incompatible materials</b>             | None known based on information supplied. |
| <b>Hazardous decomposition products</b>   | None known based on information supplied. |

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Product Information**

|                     |   |
|---------------------|---|
| <b>Inhalation</b>   | Specific test data for the substance or mixture is not available. |
| <b>Eye contact</b>  | Specific test data for the substance or mixture is not available. |
| <b>Skin contact</b> | Specific test data for the substance or mixture is not available. |
| <b>Ingestion</b>    | Specific test data for the substance or mixture is not available. |

**Symptoms related to the physical, chemical and toxicological characteristics**

|                 |                           |
|-----------------|---------------------------|
| <b>Symptoms</b> | No information available. |
|-----------------|---------------------------|

**Numerical measures of toxicity**



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## Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 14,507.00 mg/kg  
ATEmix (dermal) 40,019.00 mg/kg

**Unknown acute toxicity** 99.95358 % of the mixture consists of ingredient(s) of unknown toxicity  
 1E-05 % of the mixture consists of ingredient(s) of unknown acute oral toxicity  
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 99.95358 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)  
 99.95358 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)  
 99.95358 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

## Component Information

| Chemical name                        | Oral LD50                                      | Dermal LD50       | Inhalation LC50         |
|--------------------------------------|--|-------------------|-------------------------|
| Dimethyl Sulfoxide (DMSO)<br>67-68-5 | = 14500 mg/kg ( Rat )<br>= 28300 mg/kg ( Rat ) | = 40 g/kg ( Rat ) | > 5.33 mg/L ( Rat ) 4 h |

## Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Skin corrosion/irritation** No information available.  
**Serious eye damage/eye irritation** No information available.  
**Respiratory or skin sensitization** No information available.  
**Germ cell mutagenicity** No information available.  
**Carcinogenicity** No information available.  
**Reproductive toxicity** No information available.  
**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Aspiration hazard** No information available.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

| Chemical name                        | Algae/aquatic plants                                | Fish   | Toxicity to microorganisms | Crustacea                              |
|--------------------------------------|---|--|----------------------------|--|
| Dimethyl Sulfoxide (DMSO)<br>67-68-5 | EC50: 12350 - 25500mg/L (96h, Skeletonema costatum) | LC50: >40g/L (96h, Lepomis macrochirus)<br>LC50: 33 - 37g/L (96h, Oncorhynchus mykiss) | -                          | EC50: =7000mg/L (24h, Daphnia species) |



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|  |  |   |  |
|--|--|---|--|
|  |  | LC50: =41.7g/L (96h, Cyprinus carpio) LC50: =34000mg/L (96h, Pimephales promelas) |  |
|--|--|---|--|

**Persistence and degradability** No information available.

**Bioaccumulation** There is no data for this product.

| Chemical name                        | Partition coefficient |
|--------------------------------------|-----------------------|
| Dimethyl Sulfoxide (DMSO)<br>67-68-5 | -2.03                 |

**Other adverse effects** No information available.

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

## 14. TRANSPORT INFORMATION

**DOT** Not regulated

**TDG** Not regulated

**MEX** Not regulated

**ICAO (air)** Not regulated

**IATA** Not regulated

**IMDG** Not regulated

**RID** Not regulated

**ADR** Not regulated





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**ADN** Not regulated

## 15. REGULATORY INFORMATION

### International Inventories

|                      |                 |
|----------------------|-----------------|
| <b>TSCA</b>          | Does not comply |
| <b>DSL/NDSL</b>      | Does not comply |
| <b>EINECS/ELINCS</b> | Does not comply |
| <b>ENCS</b>          | Does not comply |
| <b>IECSC</b>         | Does not comply |
| <b>KECL</b>          | Does not comply |
| <b>PICCS</b>         | Does not comply |
| <b>AICS</b>          | Does not comply |

### **Legend:**

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS** - Japan Existing and New Chemical Substances
- IECSC** - China Inventory of Existing Chemical Substances
- KECL** - Korean Existing and Evaluated Chemical Substances
- PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- AICS** - Australian Inventory of Chemical Substances

### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### SARA 311/312 Hazard Categories

|  |     |
|--|-----|
| <b>Acute health hazard</b>               | No  |
| <b>Chronic Health Hazard</b>             | No  |
| <b>Fire hazard</b>                       | Yes |
| <b>Sudden release of pressure hazard</b> | No  |
| <b>Reactive Hazard</b>                   | No  |

#### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.



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## US State Regulations

### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

## U.S. State Right-to-Know Regulations

### **US State Regulations**

| Chemical name                        | New Jersey | Massachusetts | Pennsylvania |
|--------------------------------------|------------|---------------|--------------|
| Dimethyl Sulfoxide (DMSO)<br>67-68-5 | X          | -             | -            |

## U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

## **16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

Prepared By, Quality Control. STEMCELL Technologies Canada Inc.

Revision Date 07-Jul-2020

Revision Note No information available.

### **Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. STEMCELL Technologies Inc. shall not be held liable for any damage resulting from handling or from contact with the product.

**End of Safety Data Sheet**