



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision Date 11-Sep-2023

Revision Number 1

## 100-0876 - STEMdiff™ Motor Neuron Differentiation Supplement C

### Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

Document Number 10000017284  
Product Name STEMdiff™ Motor Neuron Differentiation Supplement C  
Pure substance/mixture Mixture

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

Recommended Use Laboratory reagent  
Uses advised against No information available

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

##### Manufacturer

STEMCELL Technologies SARL  
40 Rue des Berges, Miniparc Polytec, Bâtiment Sirocco, 38000 Grenoble, France  
+33 (0) 4 76 04 75 30  
STEMCELL Technologies Germany GmbH  
Stolberger Str. 200, 50933, Köln, Germany  
+33 (0) 4 76 04 75 30  
STEMCELL Technologies UK Ltd.  
Building 7100, Cambridge Research Park, Beach Drive, Waterbeach, Cambridge, UK, CB25 9TL  
+33 (0) 4 76 04 75 30

For further information, please contact

#### 1.4. Emergency telephone number

Emergency Telephone No information available

Emergency Telephone - \$45 - (EC)1272/2008
Europe 112

### Section 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)



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### 2.2. Label elements



**Signal word**  
Warning

#### Hazard statements

#### Hazard statements

H315 - Causes skin irritation

H319 - Causes serious eye irritation

### 2.3. Other hazards

No information available

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Synonym

Not applicable

### 3.2 Mixtures

Chemical name	EC No.	CAS No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
dimethyl sulfoxide	200-664-3	67-68-5	>99*	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Flam. Liq. 3 (H226)	No data available

**Full text of H- and EUH-phrases: see section 16**

## Section 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

#### General advice

Show this safety data sheet to the doctor in attendance.



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Inhalation	Get medical attention immediately if symptoms occur. Remove to fresh air.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

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

Symptoms Burning sensation.

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

Note to physicians Treat symptomatically.

### Section 5: FIRE-FIGHTING MEASURES

#### 5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media No information available.

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

Specific hazards arising from the chemical No information available.

#### 5.3. Advice for firefighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

### Section 6: ACCIDENTAL RELEASE MEASURES

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



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<b>Personal precautions</b>	Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.
<b>Other Information</b>	Refer to protective measures listed in Sections 7 and 8.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.
<b><u>6.2. Environmental precautions</u></b>	
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so.
<b><u>6.3. Methods and material for containment and cleaning up</u></b>	
<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Take up mechanically, placing in appropriate containers for disposal.
<b>Prevention of secondary hazards</b>	Clean contaminated objects and areas thoroughly observing environmental regulations.
<b><u>6.4. Reference to other sections</u></b>	
<b>Reference to other sections</b>	See section 8 for more information. See section 13 for more information.

## Section 7: HANDLING AND STORAGE

### **7.1. Precautions for safe handling**

<b>Advice on safe handling</b>	Take off contaminated clothing and wash before reuse. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.
<b>General hygiene considerations</b>	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

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

<b>Storage Conditions</b>	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 information listed on the Product Information Sheet (PIS).
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### **7.3. Specific end use(s)**

#### **Identified Uses**



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**Risk Management Methods (RMM)** The information required is contained in this Material Safety Data Sheet.

### Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1. Control parameters

##### Exposure Limits

Chemical name	European Union	United Kingdom	France	Spain	Germany
dimethyl sulfoxide 67-68-5	-	-	-	-	TWA: 50 ppm TWA: 160 mg/m <sup>3</sup> H*
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
dimethyl sulfoxide 67-68-5	-	-	-	TWA: 50 ppm iho*	TWA: 50 ppm TWA: 160 mg/m <sup>3</sup>
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
dimethyl sulfoxide 67-68-5	TWA: 50 ppm TWA: 160 mg/m <sup>3</sup> H*	TWA: 50 ppm TWA: 160 mg/m <sup>3</sup> STEL: 100 ppm STEL: 320 mg/m <sup>3</sup> H*	-	-	-

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

#### 8.2. Exposure controls

##### Personal protective equipment

**Eye/face protection** If splashes are likely to occur, wear safety glasses with side-shields.

**Hand protection** Impervious gloves. Wear suitable gloves.

**Skin and body protection** Long sleeved clothing. Wear suitable protective clothing.

**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.



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**General hygiene considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

**Environmental exposure controls** No information available.

### Section 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1. Information on basic physical and chemical properties

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

Property	Values	Remarks • Method
pH	No data available	None known
Melting point / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash point	87 °C	
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available	

**Oxidizing properties** No information available

#### 9.2. Other information

**Softening point** No information available  
**Molecular weight** No information available  
**Molecular formula** No information available  
**VOC Content (%)** No information available  
**Liquid Density** No information available  
**Bulk density** No information available



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#### Section 10: STABILITY AND REACTIVITY

##### 10.1. Reactivity

Reactivity No information available.

##### 10.2. Chemical stability

Stability Stable under recommended transport or storage conditions.

##### Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

##### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

##### 10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

##### 10.5. Incompatible materials

Incompatible materials Strong acids. Strong oxidizing agents.

##### 10.6. Hazardous decomposition products

Hazardous decomposition products Hazardous decomposition products formed under fire conditions: Carbon oxides, Sulphur oxides.

#### Section 11: TOXICOLOGICAL INFORMATION

##### 11.1. Information on toxicological effects

##### Information on likely routes of exposure

##### Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.



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<b>Eye contact</b>	Irritating to eyes. Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components).
<b>Skin contact</b>	Causes skin irritation. (based on components). 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. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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

**Symptoms** Redness. May cause redness and tearing of the eyes.

### Numerical measures of toxicity

#### Acute toxicity

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

<b>ATEmix (oral)</b>	14,531.40 mg/kg
<b>ATEmix (dermal)</b>	40,086.70 mg/kg

**Unknown acute toxicity** 100 % of the mixture consists of ingredient(s) of unknown toxicity.  
0.21625 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.  
100 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.  
100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).  
100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).  
100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

### Product Information

#### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
dimethyl sulfoxide	= 14500 mg/kg ( Rat ) = 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** Classification based on data available for ingredients. Irritating to skin.

### Product Information

**Serious eye damage/eye irritation** Classification based on data available for ingredients. Irritating to eyes.

### Product Information

**Respiratory or skin sensitization** No information available.





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### Product Information

**Germ cell mutagenicity** No information available.

### Product Information

**Carcinogenicity** No information available.

### Product Information

**Reproductive toxicity** No information available.

### Product Information

**STOT - single exposure** No information available.

### Product Information

**STOT - repeated exposure** No information available.

### Product Information

**Aspiration hazard** No information available.

## Section 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

#### Ecotoxicity

**Unknown aquatic toxicity** Contains 0.21625 % of components with unknown hazards to the aquatic environment.

Product Information				
Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
dimethyl sulfoxide	EC50: 12350 - 25500mg/L (96h, <i>Skeletonema costatum</i> )	LC50: >40g/L (96h, <i>Lepomis macrochirus</i> ) LC50: 33 - 37g/L (96h, <i>Oncorhynchus mykiss</i> ) LC50: =41.7g/L (96h, <i>Cyprinus carpio</i> ) LC50: =34000mg/L (96h, <i>Pimephales promelas</i> )	-	EC50: =7000mg/L (24h, <i>Daphnia</i> species)

### 12.2. Persistence and degradability

**Persistence and degradability** No information available.

### 12.3. Bioaccumulative potential



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

#### Component Information

Chemical name	Partition coefficient
dimethyl sulfoxide	-2.03

#### 12.4. Mobility in soil

**Mobility in soil** No information available.

#### 12.5. Results of PBT and vPvB assessment

##### PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
dimethyl sulfoxide	The substance is not PBT / vPvB

#### 12.6. Other adverse effects

**Other adverse effects** No information available.

## Section 13: DISPOSAL CONSIDERATIONS

#### 13.1. 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.

## Section 14: TRANSPORT INFORMATION

#### IMDG

14.1 UN Number Not regulated  
 14.2 UN proper shipping name Not regulated  
 14.3 Transport hazard class(es) Not regulated  
 14.4 Packing Group Not regulated  
 14.5 Marine pollutant Not applicable  
 14.6 Special Provisions None  
 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code No information available



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### RID

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None

### ADR

14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None

### IATA

	<b>Not regulated</b>
14.1 UN Number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None

## Section 15: REGULATORY INFORMATION

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

#### National regulations

##### France

##### Occupational Illnesses (R-463-3, France)

Chemical name	French RG number	Title
dimethyl sulfoxide 67-68-5	RG 84	-

#### European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

#### Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This



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product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

#### Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

#### International Inventories

TSCA	Does not comply
DSL/NDL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

#### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - 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

#### 15.2. Chemical safety assessment

Chemical Safety Report No information available

### Section 16: OTHER INFORMATION

#### Key or legend to abbreviations and acronyms used in the safety data sheet

#### Full text of H-Statements referred to under section 3

H226 - Flammable liquid and vapor  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation

#### Legend

SVHC: Substances of Very High Concern for Authorization:

#### Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION



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TWA  
Ceiling

TWA (time-weighted average)  
Maximum limit value

STEL  
\*

STEL (Short Term Exposure Limit)  
Skin designation

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#### Disclaimer

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