

NeuroFluorTM CDr3**SAFETY DATA SHEET**

ACCORDING TO US CFR 1910.1200

Revision: N/A

Effective Date: 2014-10-28

1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier**

Product Name	NeuroFluor TM CDr3
Molecule Name	CDr3
Chemical formula	C ₂₅ H ₂₄ BCl ₃ F ₂ N ₂ O ₄
CAS No.	1357577-75-3
Catalog No.	01800 (25 µg as 100 µM liquid, dissolved in 0.5 mL Dimethyl sulfoxide, DMSO).
EINECS No.	None assigned.

1.2 Recommended use of the chemical and restrictions on use

Identified use(s)	Membrane-permeable fluorescent probe derivative of BODIPY FL (4,4-difluoro- 5,7-dimethyl-4-bora-3a,4a-diazas-indacene-3-propionic acid) that binds to fatty acid binding protein 7 (FABP7) for the detection and isolation of viable neural stem/progenitor cells.
Uses advised against	None known.

1.3 Details of the supplier of the Safety Data Sheet

Company Identification	STEMCELL Technologies Inc. Suite 500-1618 Station Street Vancouver, British Columbia V6A 1B6 Canada.
Telephone	1-604-877-0713
Fax	1-800-567-2899
E-Mail (competent person)	info@stemcell.com

1.4 Emergency telephone number

Toll-free	1-800-667-0322
-----------	----------------

2. SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture**

US CFR 1910.1200	Flam. Liq. 4: Combustible liquid.
-------------------------	-----------------------------------

2.2 Label elements

Product Name	NeuroFluor TM CDr3
Hazard pictogram(s)	None.
Signal word(s)	Warning.
Hazard statement(s)	H227: Combustible liquid.
Precautionary statement(s)	P210: Keep away from flames and hot surfaces. - No smoking. P280: Wear protective gloves/eye protection/face protection. P370+P378: In case of fire: Use water spray, foam, dry powder or CO ₂ for extinction. P403+P235: Store in a well-ventilated place. Keep cool. P501: Dispose of contents/container to: Suitable refuse site.

Additional Information

NOTE: The toxicological properties of this product have not been fully evaluated.

Page: 1/6

NeuroFluor™ CDr3

- 2.3 **Other hazards** May cause irritation to skin, eyes and respiratory system.
- 2.4 **Additional Information** None.

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Hazardous Ingredient(s)	CAS No.	%W/W
DMSO	67-68-5	95
CDr3	1357577-75-3	5

- 3.2 **Additional Information**
None.

4. SECTION 4: FIRST AID MEASURES



- 4.1 **Description of first aid measures**
- | | |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhalation | If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, obtain medical attention. |
| Skin Contact | Wash skin with soap and water. If skin irritation occurs, get medical advice/attention. |
| Eye Contact | Flush eyes with water for at least 15 minutes while holding eyelids open. If eye irritation persists, get medical advice/attention. |
| Ingestion | Wash out mouth with water and give 200-300 ml (half a pint) of water to drink. If symptoms develop, obtain medical attention. |
- 4.2 **Most important symptoms and effects, both acute and delayed** None known.
- 4.3 **Indication of any immediate medical attention and special treatment needed** Unlikely to be required but if necessary treat symptomatically.

5. SECTION 5: FIRE-FIGHTING MEASURES

- 5.1 **Extinguishing Media**
- | | |
|--------------------------------|---------------------------------------------------------------------------------------|
| Suitable Extinguishing Media | In case of fire, use water spray, foam, dry powder or CO ₂ for extinction. |
| Unsuitable Extinguishing Media | None known. |
- 5.2 **Special hazards arising from the substance or mixture** None known.
- 5.3 **Advice for fire-fighters** Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

6. SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1 **Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation. Wear protective gloves/eye protection/face protection.
- 6.2 **Environmental precautions** No environmental hazards have been reported or known. Do not allow to enter drains, sewers or watercourses.
- 6.3 **Methods and material for containment and cleaning up** Clear up spillages. Transfer to a container for disposal.

NeuroFluor™ CDr3

6.4 Reference to other sections See Also Section 8, 13

7. SECTION 7: HANDLING AND STORAGE





- 7.1 Precautions for safe handling** General hygiene measures for the handling of chemicals are applicable. Ensure adequate ventilation. Wear protective gloves/eye protection/face protection. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.
- 7.2 Conditions for safe storage, including any incompatibilities** Store in a well-ventilated place. Keep cool. Keep away from flames and hot surfaces. - No smoking.
- Storage Temperature -20°C
- Incompatible materials None known.

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Control parameters
- 8.1.1 Occupational Exposure Limits

SUBSTANCE	CAS No.	LTCL (8 hr TWA ppm)	LTCL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note
DMSO	67-68-5	-	-	-	-	NIOSH
		-	-	-	-	OSHA
CDr3	1357577-75-3	-	-	-	-	NIOSH
		-	-	-	-	OSHA

NIOSH = National Institute of Occupational Safety & Health
 OSHA = Occupational Safety and Health Administration

- 8.2 Appropriate engineering controls** Provide adequate ventilation. A washing facility/water for eye and skin cleaning purposes should be present.
- 8.3 Individual protection measures, such as personal protective equipment (PPE)**
- Eye/face protection  Wear: Goggles.
- Skin protection (Hand protection/ Other)  Wear: Laboratory coat, Gloves.
- Respiratory protection  Handling of larger amounts: Wear suitable respiratory protective equipment.
- Thermal hazards  Not applicable.

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Information on basic physical and chemical properties**
- Appearance Liquid.
- Color Magenta.
- Odor Odorless.

NeuroFluor™ CDr3

Odor Threshold	Not available.
pH	Not available.
Melting Point/Freezing Point	19°C (DMSO).
Initial boiling point and boiling range	189°C @ 1013 hPa (DMSO).
Flash point	87°C (DMSO).
Evaporation rate	Not available.
Flammability (solid, gas)	Non-flammable.
Upper/lower flammability or explosive limits	Not applicable.
Vapor pressure	0.56 hPa @ 20°C (DMSO).
Vapor density	Not available.
Relative density	Not available.
Solubility (Water)	Soluble (DMSO).
Partition coefficient: n-octanol/water	-1.35 log P (DMSO).
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not available.
Viscosity	2.14 mPa•s @ 20°C (DMSO).
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
9.2 Other information	
Molecular weight	572 g/mol (CDr3).
Purity	>96% (CDr3).

10. SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	Stable under normal conditions.
10.2 Chemical stability	Stable under normal conditions.
10.3 Possibility of hazardous reactions	No hazardous reactions known if used for its intended purpose.
10.4 Conditions to avoid	Keep away from flames and hot surfaces.
10.5 Incompatible materials	None known.
10.6 Hazardous Decomposition Product(s)	No hazardous decomposition products known.

11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects	
Acute toxicity	Low acute toxicity.
Irritation	May cause irritation to skin, eyes and respiratory system.
Corrosivity	Not classified.
Sensitization	It is not a skin sensitizer.
Repeated dose toxicity	None anticipated.
Carcinogenicity	No evidence of carcinogenicity.
Mutagenicity	There is no evidence of mutagenic potential.
Toxicity for reproduction	None anticipated.
Aspiration hazard	None anticipated.
11.2 Other information	To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

12. SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	No environmental hazards have been reported or known.
12.2 Persistence and degradability	The product is biodegradable. Unlikely to persist.
12.3 Bioaccumulative potential	The product has low potential for bioaccumulation.
12.4 Mobility in soil	Soluble in water. The product is predicted to have high mobility in soil.
12.5 Other adverse effects	None known.

NeuroFluor™ CDr3

13. SECTION 13: DISPOSAL CONSIDERATIONS

- | | |
|-------------------------------------|----------------------------------------------------------------------------------------|
| 13.1 Waste treatment methods | Dispose of contents/container to: Suitable refuse site. |
| 13.2 Additional Information | Disposal should be in accordance with local, provincial/state or national legislation. |

14. SECTION 14: TRANSPORT INFORMATION

US D.O.T. and Canadian TDG Classification

This product is 0.5 mL packaged in a 2 mL bottle, which is not regulated.

- | | |
|-------------------------------------------------------------------------------------|----------------------------------------------------------|
| 14.1 UN number | Not applicable. |
| 14.2 UN Proper Shipping Name | Not applicable. |
| 14.3 Transport hazard class(es) | Not applicable. |
| 14.4 Packing Group | Not applicable. |
| 14.5 Environmental hazards | Not applicable. |
| 14.6 Special precautions for user | Not applicable. |
| 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| 14.8 Additional Information | Shipped in containers greater than 119 gallons capacity. |
| UN number | NA 1993. |
| UN Proper Shipping Name | COMBUSTIBLE LIQUIDS, N.O.S. (DMSO (Dimethyl sulfoxide)). |
| Packing Group | III |

15. SECTION 15: REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- 15.1.1 USA**
- | | |
|-------------------------------------------------------------------------|--------------------------------------------------------------|
| Toxic and hazardous substances (29 CFR 1910; Subpart Z) | All chemicals are not listed. |
| National emission standards for hazardous air pollutants (40 CFR 61.01) | All chemicals are not listed. |
| Tittle III Consolidated List of Lists | All chemicals are not listed. |
| OSPAR List of Chemicals for Priority Action | All chemicals are not listed. |
| State Right to Know Lists | Listed: Dimethyl sulfoxide (CAS No.: 67-68-5).
New Jersey |
| TSCA (Toxic Substance Control Act) | Listed: Dimethyl sulfoxide (CAS No.: 67-68-5). |
| Proposition 65 (California) | All chemicals are not listed. |
| CAA 602 - Ozone Depleting Substances (ODS) | All chemicals are not listed. |
- 15.1.2 Canada**
- This product has been classified in accordance to CPR Section 12 and the MSDS contains all the information required by the CPR.
- | | |
|-------------------------------------------------------------|-----------------------|
| WMHIS Classification | B3 Combustible Liquid |
| Domestic Substances List (DSL) | Listed. |
| Export Control List | Not listed. |
| Priority Substances List (PSL) | Not listed. |
| Toxic Substances List | Not listed. |
| Ingredient Disclosure List | Listed. |
| List of all Challenge Substances | Not listed. |
| National Pollutant Release Inventory (NPRI) Substances List | Not listed. |
- 15.1.3 EU**

NeuroFluor™ CDr3

 Regulation (EC) No. 1272/2008 (CLP)
 Directive 67/548/EEC & Directive 1999/45/EC

 Not classified as dangerous for supply/use.
 Not classified as dangerous for supply/use.

16. SECTION 16: OTHER INFORMATION

NFPA		HMIS	
Health	1	Health	1
Fire	2	Flammability	2
Instability	0	Physical hazards	0

The following sections contain revisions or new statements: 1 - 16.

LEGEND

US CFR	United States Code of Federal Regulations
LTEL	Long Term Exposure Limit
STEL	Short Term Exposure Limit
US D.O.T.	United States Department of Transportation
MARPOL	International Convention for the Prevention of Pollution From Ships
IBC	International Bulk Chemical
OSPAR	Oslo and Paris Convention
CAA	Clean Air Act
NFPA	National Fire Protection Association
HMIS	Hazardous Material Information System
Flam. Liq. 4	Flammable liquid Category 4

Disclaimers

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

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.