

Material Safety Data Sheet

Recombinant Human Bone Morphogenetic Protein-2 (BMP-2)

Cat. No: 02523

1 Product and Company Identification

- 1.1 Product Name:** Recombinant Human Bone Morphogenetic Protein-2 (BMP-2)
1.2 Catalog Number: 02523
1.3 Synonyms: Not Available
1.4 Product Use: Cell Culture
1.5 Manufacturer/Supplier: StemCell Technologies Inc.
Suite 400, 570 West 7th Avenue
Vancouver, BC V5Z 1B3
Canada
1.6 In Case of Emergency Call: 604-877-0713
1.7 Date Effective: June 3, 2010
1.8 Prepared By: Quality Control

2 Composition / Information on Ingredients

2.1 Component	CAS No.	%W/W
Recombinant cytokine	Not Available	2

3 Hazards Identification

- 3.1 Emergency Overview:** This product is a potential irritant to eyes, respiratory system, and skin. This product may also be harmful if ingested. Complete toxicological properties have yet to be determined.
- 3.2 Routes of Exposure:** Absorbed through skin, eye contact, inhalation, and ingestion.
- 3.3 Potential Health Effects:**
- 3.3.1 Eye:** May cause eye irritation.
 - 3.3.2 Skin:** May cause skin irritation.
 - 3.3.3 Inhalation:** May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
 - 3.3.4 Ingestion:** May be harmful if swallowed.
- 3.4 Chronic Effects/Carcinogenicity:** Not Available
3.5 OSHA Regulatory Status: Not Available

4 First Aid Measures

- 4.1 Eyes:** In case of contact with eyes, flush thoroughly with water. Call a physician.
- 4.2 Skin:** In case of contact with skin, wash the affected area with soap and copious amounts of water. Should irritation occur, contact a physician.
- 4.3 Ingestion:** If swallowed, wash out mouth with water provided person is conscious. Call a physician.
- 4.4 Inhalation:** If inhaled, remove person to fresh air. If breathing becomes difficult, call a physician.

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4.5 Puncture Wounds: Wash thoroughly with soap and water. Allow to bleed freely. Call a physician.

4.6 Note to Physician: Not Available

5 Fire Fighting Measures

5.1 Flash Point/Method: Not Available

5.2 Explosive Limits:

5.2.1 Upper: Not Available

5.2.2 Lower: Not Available

5.3 Autoignition Temperature: Not Available

5.4 Hazardous Combustion Products: Emits toxic fumes under fire conditions.

5.5 Conditions of Flammability: Not Available

5.6 Extinguishing Media: Water spray. Carbon dioxide, dry chemical powder or appropriate foam.

5.7 Fire Fighting Procedures: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

5.8 Explosion Data:

5.8.1 Sensitivity to Mechanical Impact: Not Available

5.8.2 Sensitivity to Static Discharge: Not Available

6 Accidental Release Measures

6.1 Leak and Spill Procedure: Wear chemical-resistant gloves. Sweep up and place in closed container for disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

7 Handling and Storage

7.1 Handling: This material is believed to be non-hazardous. Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. May cause allergic reaction in sensitized individuals.

7.2 Storage: Store at -20°C.

8 Exposure Controls/Personal Protection

8.1 Engineering Controls: Safety shower and eye bath. Mechanical exhaust required.

8.2 Personal Protective Equipment:

8.2.1 Respiratory Protection: Wear dust mask.

8.2.2 Eye Protection: Safety glasses.

8.2.3 Skin Protection: Lab coat, latex gloves.

8.3 General Hygiene Considerations: Wash hands after use.

8.4 Exposure Limits:

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8.4.1 ACGIH TLV-TWA: Not Available

8.4.2 OSHA PEL-TWA: Not Available

9 Physical/Chemical Properties:

9.1 Appearance: White powder
9.2 Odor: None
9.3 Physical State: Solid
9.4 pH: Not Available
9.5 Boiling Point: Not Available
9.6 Melting Point: Not Available
9.7 Freezing Point: Not Available
9.8 Vapor Pressure: Not Available
9.9 Vapor Density: Not Available
9.10 Specific Gravity: Not Available
9.11 Evaporation Rate: Not Available
9.12 Solubility in Water: Not Available
9.13 Odor Threshold: Not Applicable
9.14 Coefficient of Water/Oil Distribution: Not Available

10 Stability/Reactivity:

10.1 Chemical Stability: Stable
10.2 Conditions to Avoid: Not Available
10.3 Incompatibility (Material to Avoid): Strong oxidizing agents.
10.4 Hazardous Decomposition/By-Products: Nature of decomposition products not known.
10.5 Hazardous Polymerization: Not Available

11 Toxicological Information

11.1 Effects of Short-Term Exposure: Not Available
11.2 Effects of Long-Term Exposure: Not Available
11.3 Irritancy of Product: Not Available
11.4 Sensitization to Product: Not Available
11.5 Carcinogenicity: Not Available
11.6 Reproductive Toxicity: Not Available
11.7 Teratogenicity and Embryotoxicity: Not Available
11.8 Mutagenicity: Not Available
11.9 Name of Toxicologically Synergistic Products: Not Available

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11.10 LD50 (specify species and route): Not Available

11.11 LC50 (specify species): Not Available

12 Ecological Information

12.1 Not Available

13 Disposal Considerations

13.1 Waste Disposal Method: Disposal should be in accordance with existing practices at your institution. Observe all Federal, Provincial/State and Local Laws.

14 Transport Information

14.1 Transport Canada

14.1.1 PIN No.: Not Available

14.2 U.S. Department of Transportation:

14.2.1 Proper Shipping Name: Not Available

14.2.2 Hazard Class: This substance is not known to be hazardous for transport.

14.2.3 ID. Number: Not Available

14.2.4 Packing Group: Not Available

14.2.5 Label Statement: Not Available

15 Regulatory Information

15.1 WHMIS Classification: Not Available

15.2 Note: This MSDS was prepared according to the Canadian Controlled Products Regulation and contains all of the information required by those regulations.

16 Other Information

16.1 Preparation Information: Refer to PIS No. 02523.

16.2 This MSDS has been revised in the following section(s): 1.8, 2.1

16.3 Original Issue Date: June 22, 2007

16.4 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 Material Safety Data Sheet (MSDS) is current as of the Date Prepared shown in Section 1.7 of this document and may be subject to amendment by StemCell Technologies Inc.

16.5 Disclaimer: **THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT USED FOR DIAGNOSTIC OR THERAPEUTIC APPLICATIONS.**