1 Product and Company Identification

1.1 Product Name: Hydrocortisone 21-Hemisuccinate (Sodium Salt)

1.2 Catalog Number: 07904

1.3 Synonyms: Cortisol 21-hemisuccinate,

11β,17α,21-Trihydroxy-4-pregnene-3,20-dione 21-hemisuccinate

Cat. No: 07904

1.4 Product Use: Tissue 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: December 12, 2012

1.8 Prepared By: Quality Control

2 Composition / Information on Ingredients

2.1 Component CAS No. %W/W

Hydrocortisone 21-(sodium succinate) 125-04-2 100

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. Targets lungs.

3.3.4 Ingestion: May be harmful if swallowed.

3.4 Chronic Effects/Carcinogenicity: Not Available3.5 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.

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

4.6 Note to Physician: Not Available

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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: Hazardous decomposition products formed under fire

conditions - Carbon oxides, Sodium oxides

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5.5 Conditions of Flammability:Not flammable or combustible

5.6 Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or

carbon dioxide

5.7 Fire Fighting Procedures: Not Available

5.8 Explosion Data:

5.8.1 Sensitivity to Mechanical Impact: Not Available5.8.2 Sensitivity to Static Discharge: Not Available

6 Accidental Release Measures

6.1 Leak and Spill Procedure: Wear chemical-resistant gloves. Avoid dust formation. Avoid breathing

vapors, mist or gas. Sweep up and shovel. Keep in suitable, closed

containers for disposal.

7 Handling and Storage

7.1 Handling: Should be handled by trained personnel observing good laboratory practices. Provide

appropriate exhaust ventilation at places where dust is formed. Avoid skin contact or

swallowing. May cause allergic reaction in sensitized individuals.

7.2 Storage: Store at -20°C.

8 Exposure Controls/Personal Protection

8.1 Engineering Controls: Use mechanical exhaust or laboratory fumehood to avoid

exposure.

8.2 Personal Protective Equipment:

8.2.1 Respiratory Protection: Respiratory protection is not required. Where protection from

nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards

such as NIOSH (US) or CEN (EU).

8.2.2 Eye Protection: Use equipment for eye protection tested and approved under

appropriate government standards such as NIOSH (US) or EN

166 (EU).

8.2.3 Skin Protection: Handle with gloves. Gloves must be inspected prior to use. Use

proper glove removal technique to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance

with applicable laws and good laboratory practices.

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8.3 General Hygiene Considerations: Wash hands after use.

8.4 Exposure Limits:

8.4.1 ACGIH TLV-TWA: Not Available8.4.2 OSHA PEL-TWA: Not Available

9 Physical/Chemical Properties:

9.1 Appearance: White powder

9.2 Odor: None9.3 Physical State: Solid

9.4 pH: Not Available Not Available 9.5 Boiling Point: 9.6 Melting Point: Not Available 9.7 Freezing Point: Not Available Not Available 9.8 Vapor Pressure: 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:Avoid moisture

10.3 Incompatibility (Material to Avoid): Strong oxidizing agents.

10.4 Hazardous Decomposition/By-Products: Hazardous decomposition products formed under fire

conditions - Carbon oxides. Sodium oxides.

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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: Prolonged or repeated exposure can cause: damage to

the eyes

11.3 Irritancy of Product: Not Available11.4 Sensitization to Product: Not Available

11.5 Carcinogenicity: Some steroids show carcinogenic activity.

11.6 Reproductive Toxicity: Not Available

11.7 Teratogenicity and Embryotoxicity: Some steroids show teratogenic activity.

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11.8 Mutagenicity: Not Available

11.9 Name of Toxicologically Synergistic Products: Not Available

11.10 LD50 (specify species and route): Intraperitoneal - rat - 1320 mg/kg

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:

Proper Shipping Name: 14.2.1 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 **Label Statement:** 14.2.5 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 the information required by those regulations

16 Other Information

16.1 Preparation Information: Refer to PIS No. 07904.

16.2 This MSDS has been revised in the following section(s): 1.1, 1.3, 2.1, 5.4, 5.5, 5.6, 6.1, 7.1, 8.1,

8.2.1, 8.2.2, 8.2.3, 9.4, 9.6, 9.7, 10.2,

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10.4, 11.1, 11.2, 11.5, 11.10, 16.5

16.3 Original Issue Date: April 9, 1996.

The above information is believed to be correct but does not purport to be all inclusive 16.4 Notice:

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 ammendment by

StemCell Technologies Inc.

16.5 Disclaimer: THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR

ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.