

Material Safety Data Sheet

Activator

Cat. No: 01733

1 Product and Company Identification

- 1.1 **Product Name:** Activator
- 1.2 **Catalog Number:** 01733
- 1.3 **Synonyms:** Not Applicable
- 1.4 **Product Use:** For laboratory research purposes
- 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 12, 2014
- 1.8 **Prepared By:** Quality Control

2 Composition / Information on Ingredients

2.1 Component	CAS No.	%W/W
Hydrochloric acid (HCl)	7647-01-0	3.6%
Dimethyl Sulfoxide (DMSO)	67-68-5	4%

3 Hazards Identification

- 3.1 **Emergency Overview:** Causes eye and skin burns. Extremely harmful to the respiratory tract. May be harmful if inhaled, swallowed or absorbed through skin. The toxicological properties of this product have not been fully evaluated. DMSO is readily absorbed through skin. Target organs (DMSO): eyes, skin.
- 3.2 **Routes of Exposure:** Absorbed through skin, eye contact, inhalation, and ingestion.
- 3.3 **Potential Health Effects:**
- 3.3.1 **Eye:** Causes eye burns.
- 3.3.2 **Skin:** May be harmful if absorbed through skin. Causes skin burns.
- 3.3.3 **Inhalation:** May be harmful if inhaled. Material is extremely destructive to the tissue of the 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:** Corrosive

4 First Aid Measures

- 4.1 **Eyes:** In case of contact with eyes, flush thoroughly with water for at least 15 minutes. Call a physician. Continue rinsing eyes during transport to hospital.
- 4.2 **Skin:** In case of contact with skin, wash the affected area with soap and copious amounts of water. Remove contaminated clothing. Contact a physician.
- 4.3 **Ingestion:** Do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Call a physician.

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- 4.4 Inhalation:** If inhaled, remove person to fresh air. If not breathing, give artificial respiration. 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 - Hydrogen chloride gas (HCl); Carbon oxides, Sulphur oxides (DMSO)
- 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
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6 Accidental Release Measures

- 6.1 Leak and Spill Procedure:** Wear respirator protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Do not let product enter drains. Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.
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7 Handling and Storage

- 7.1 Handling:** Should be handled by trained personnel observing good laboratory practices. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Avoid contact with DMSO solutions containing toxic materials or materials with unknown toxicological properties. DMSO is readily absorbed through skin and may carry such materials into the body. Keep container tightly closed in a dry and well-ventilated place.
- 7.2 Storage:** Store at 2 - 8°C. Keep container tightly closed.
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8 Exposure Controls / Personal Protection

- 8.1 Engineering Controls:** Safety shower and eye bath. Mechanical exhaust or laboratory fumehood required.
- 8.2 Personal Protective Equipment:**

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8.2.1 Respiratory Protection:	Respirator that meets CAN/CSA Z94.4-93 (R1997) or NIOSH approved respirator, as conditions warrant.
8.2.2 Eye Protection:	Chemical safety goggles.
8.2.3 Skin Protection:	Lab coat, compatible chemical-resistant gloves.
8.3 General Hygiene Considerations:	Wash hands after use. Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.
8.4 Exposure Limits:	
8.4.1 ACGIH TLV-TWA:	2 ppm (HCl)
8.4.2 OSHA PEL-TWA:	5 ppm (HCl) 7 mg/m ³ (HCl)

9 Physical / Chemical Properties

9.1 Appearance:	Clear, colorless
9.2 Odor:	Not Available
9.3 Physical State:	Liquid
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 Available
9.14 Coefficient of Water/Oil Distribution:	Not Available

10 Stability / Reactivity

10.1 Chemical Stability:	Not Available
10.2 Conditions to Avoid:	Not Available
10.3 Incompatibility (Material to Avoid):	HCl: Bases, amines, alkali metals, metals, hexalithium disilicide, permanganates, e.g. potassium permanganate, Fluorine
10.4 Hazardous Decomposition/By-Products:	Hydrogen chloride gas (HCl); Carbon oxides, Sulphur oxides (DMSO)
10.5 Hazardous Polymerization:	Not Available

11 Toxicological Information

11.1 Effects of Short-Term Exposure:	Not Available
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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 (germ cell):	Not Available
11.9 Name of Toxicologically Synergistic Products:	Not Available
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: (HCl)

14.2.1 Proper Shipping Name: Hydrochloric acid

14.2.2 Hazard Class: 8

14.2.3 ID. Number: UN #1789

14.2.4 Packing Group: III

14.2.5 Label Statement: Corrosive

15 Regulatory Information

15.1 WHMIS Classification: B3, E

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: Not Available

16.2 This MSDS has been revised in the following section(s): 16.1

16.3 Original Issue Date: January 16, 2014

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

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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.