

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.

Material Safety Data Sheet

DEAB 1.5 mM in 95% Ethanol

Cat. No: 01734

1 Product and Company Identification

- 1.1 **Product Name:** DEAB 1.5 mM in 95% Ethanol
- 1.2 **Catalog Number:** 01734
- 1.3 **Synonyms:** Not Available
- 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
Ethyl alcohol, 95%	64-17-5	Not Available
4-Diethylaminobenzaldehyde (DEAB)	120-21-8	0.03%

3 Hazards Identification

- 3.1 **Emergency Overview:** Flammable liquid and vapour. Causes eye, skin and respiratory irritation. Avoid breathing vapor or mist. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Use only with adequate ventilation. Avoid contact with eyes, skin and clothes. Wash thoroughly after handling.
- Target Organs (Ethyl Alcohol): Nerves, Liver, Heart
- 3.2 **Routes of Exposure:** Absorbed through skin, eye contact, inhalation, and ingestion.
- 3.3 **Potential Health Effects:**
- 3.3.1 **Eye:** Causes severe eye irritation. Vapours can irritate eyes.
- 3.3.2 **Skin:** May be harmful if absorbed through skin. Causes skin irritation.
4-Diethylaminobenzaldehyde: Toxic if absorbed through skin
- 3.3.3 **Inhalation:** May be harmful if inhaled. Causes respiratory tract irritation.
- 3.3.4 **Ingestion:** May be harmful if swallowed.
- 3.4 **Chronic Effects/Carcinogenicity:** Not Available
- 3.5 **OSHA Regulatory Status:** Ethyl Alcohol: Flammable liquid, Target Organ Effect, Carcinogen
DEAB: Toxic by skin absorption, Irritant

4 First Aid Measures

- 4.1 **Eyes:** In case of contact with eyes, flush thoroughly with water for at least 20 minutes, holding the eyelids open. Call a physician.

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DEAB 1.5 mM in 95% Ethanol

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- 4.2 Skin:** In case of contact with skin, wash the affected area with soap and rinse with water for at least 20 minutes. Remove contaminated clothing under running water. Contact a physician.
- 4.3 Ingestion:** Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Have victim drink about 250 mL (8 fl. oz.) of water to dilute material in stomach. Call a physician.
- 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:** Not Available
- 5.5 Conditions of Flammability:** Ethyl alcohol is flammable. Keep away from heat/sparks/open flame/hot surface. No smoking.
- 5.6 Extinguishing Media:** 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:** Use personal protective equipment. Ensure adequate ventilation. Avoid breathing vapors, mist or gas. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Spill should be collected in suitable containers or absorbed on a suitable absorbent material for subsequent disposal.
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7 Handling and Storage

- 7.1 Handling:** Should be handled by trained personnel observing good laboratory practices. Use with adequate ventilation. Avoid ingestion and inhalation. Avoid contact with eyes and skin. Avoid contact with heat, sparks and flame.
- 7.2 Storage:** Store at 2 - 8°C. Keep away from heat, sparks and flame. Keep container tightly closed.
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DEAB 1.5 mM in 95% Ethanol

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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:**
- 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:** Impervious clothing; compatible chemical-resistant gloves. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- 8.3 General Hygiene Considerations:** Wash hands thoroughly after use.
- 8.4 Exposure Limits:**
- 8.4.1 ACGIH TLV-TWA:** Ethyl Alcohol: 1000 ppm
- 8.4.2 OSHA PEL-TWA:** Ethyl Alcohol: 1000 ppm
Ethyl Alcohol: 1900 mg/m³

9 Physical / Chemical Properties

- 9.1 Appearance:** Clear pale yellow liquid
- 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:** Avoid heat, flames, sparks; extremes of temperature and direct sunlight
- 10.3 Incompatibility (Material to Avoid):** Ethyl Alcohol: Alkali metals, Ammonia, Oxidizing agents, Peroxides

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10.4 Hazardous Decomposition/By-Products: Ethyl Alcohol: Burning can produce carbon monoxide and/or carbon dioxide and/or formaldehyde

10.5 Hazardous Polymerization: Not Available

11 Toxicological Information

11.1 Effects of Short-Term Exposure: Ethyl Alcohol: Ingestion may cause dizziness, faintness, drowsiness, decreased awareness and responsiveness, euphoria, abdominal discomfort, nausea, vomiting, staggering gait, lack of coordination and coma. High vapour concentrations may cause a burning sensation in the throat and nose, stinging and watering in the eyes. At concentrations which cause irritation, dizziness, faintness, drowsiness, nausea and vomiting may occur. Damage from eye contact is usually mild to moderate conjunctivitis, seen mainly as redness of the conjunctiva.

11.2 Effects of Long-Term Exposure: Ethyl Alcohol: Long term repeated oral exposure to ethanol may result in the development of progressive liver injury with fibrosis.
Ethyl Alcohol RTECS Number: KQ6300000
DEAB RTECS Number: CU5612850

11.3 Irritancy of Product: Not Available

11.4 Sensitization to Product: Not Available

11.5 Carcinogenicity: Not Available

11.6 Reproductive Toxicity: Ethyl Alcohol: Repeated ingestion by pregnant mothers has been shown to adversely affect the central nervous system of the fetus, producing a collection of effects which together constitute the fetal alcohol syndrome. These include mental and physical retardation, disturbances of learning, motor and language deficiencies, behavioral disorders, and small size head.

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): Ethyl alcohol: LD50 Oral - rat - 7060 mg/kg
LD50 Skin - rabbit - 20,000 mg/kg

DEAB: LD50 Oral - rat - 6400 mg/kg
LD50 Dermal - rabbit - >400 mg/kg

11.11 LC50 (specify species): Ethyl alcohol: LC50 Inhalation - rat – ppm/4 h - 31,623 ppm

12 Ecological Information

12.1 DEAB: Toxicity to fish
LC50 - Pimephales promelas (fathead minnow) - 23.9 mg/L - 96 h

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

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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: Not Available

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: Ethyl Alcohol: B2, D2B
DEAB: D1B, D2B

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 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 INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.**

Material Safety Data Sheet

Neutralization Buffer

Cat. No: 01735

1 Product and Company Identification

- 1.1 Product Name:** Neutralization Buffer
- 1.2 Catalogue Number:** 01735
- 1.3 Synonyms:** Not Available
- 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
Potentially biohazardous material derived from human blood.	Not Available	Not Available
Sodium Azide	26628-22-8	0.1%

3 Hazards Identification

- 3.1 Emergency Overview:** Contains components derived from human blood. As with all human derivatives, universal handling precautions are recommended. Sodium azide is a hazardous and poisonous substance. 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, remove contact lenses and flush thoroughly with water for at least 15 minutes. Separate lids with fingers to assure adequate flushing. 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.

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Neutralization Buffer

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- 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
-

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:** Not Available
 - 5.5 **Conditions of Flammability:** Not Available
 - 5.6 **Extinguishing Media:** Use whatever is appropriate to the surrounding fire.
 - 5.7 **Fire Fighting Procedures:** Not Available – No toxic waste in run-off.
 - 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 chemical-resistant gloves. Absorb spill and place in closed container for disposal. Ventilate and wash area thoroughly after clean-up is complete.
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7 Handling and Storage

- 7.1 **Handling:** Contains components derived from human blood. Donors have been tested for hepatitis B surface antigen (HBsAg) and anti-HIV-1 and/or HIV-1 antigen. However, this product should be considered potentially infectious and treated in accordance with universal handling precautions. Should be handled by trained personnel observing good laboratory practices. May cause allergic reaction in sensitized individuals. Avoid prolonged or repeated exposure. May be disposed of down drain but flush drain with large amounts of water.
 - 7.2 **Storage:** Store at 2 - 8°C
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8 Exposure Controls/Personal Protection

- 8.1 **Engineering Controls:** Use with adequate ventilation.
- 8.2 **Personal Protective Equipment:**
 - 8.2.1 **Respiratory Protection:** This is a laboratory-use product for which no industrial protective equipment has been designated.
 - 8.2.2 **Eye Protection:** Safety glasses.

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- 8.2.3 Skin Protection:** Lab coat, latex gloves.
- 8.3 General Hygiene Considerations:** Wash hands after use.
- 8.4 Exposure Limits:**
- 8.4.1 ACGIH TLV-TWA:** Not Available
- 8.4.2 OSHA PEL-TWA:** Not Available
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9 Physical / Chemical Properties

- 9.1 Appearance:** Clear fluid
- 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
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10 Stability / Reactivity

- 10.1 Chemical Stability:** Stable
- 10.2 Conditions to Avoid:** Not Available
- 10.3 Incompatibility (Material to Avoid):** Heavy metals may form extremely explosive azides.
- 10.4 Hazardous Decomposition/By-Products:** Nature of decomposition products not known.
- 10.5 Hazardous Polymerization:** Not Available
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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

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11.7 Teratogenicity and Embryotoxicity:	Not Available
11.8 Mutagenicity:	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 An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Sodium azide is harmful to aquatic life with long lasting effects.

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: D1A, D3

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 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.

Material Safety Data Sheet

Neutralization Buffer

Cat. No: 01735

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

Material Safety Data Sheet

ALDECOUNT™ Assay Buffer

Cat. No: 01736

1 Product and Company Identification

- 1.1 Product Name:** ALDECOUNT™ Assay Buffer
1.2 Catalogue Number: 01736
1.3 Synonyms: Not Available
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
Potentially biohazardous material derived from human blood.	Not Available	Not Available
Sodium Azide	26628-22-8	0.1%

3 Hazards Identification

- 3.1 Emergency Overview:** Contains components derived from human blood. As with all human derivatives, universal handling precautions are recommended. Sodium azide is a hazardous and poisonous substance. 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, remove contact lenses and flush thoroughly with water for at least 15 minutes. Separate lids with fingers to assure adequate flushing. 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.

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ALDECOUNT™ Assay Buffer

Cat. No: 01736

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- 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:** Not Available
 - 5.5 **Conditions of Flammability:** Not Available
 - 5.6 **Extinguishing Media:** Use whatever is appropriate to the surrounding fire.
 - 5.7 **Fire Fighting Procedures:** Not Available – No toxic waste in run-off.
 - 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 chemical-resistant gloves. Absorb spill and place in closed container for disposal. Ventilate and wash area thoroughly after clean-up is complete.
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7 Handling and Storage

- 7.1 **Handling:** Contains components derived from human blood. Donors have been tested for hepatitis B surface antigen (HBsAg) and anti-HIV-1 and/or HIV-1 antigen. However, this product should be considered potentially infectious and treated in accordance with universal handling precautions. Should be handled by trained personnel observing good laboratory practices. May cause allergic reaction in sensitized individuals. Avoid prolonged or repeated exposure. May be disposed of down drain but flush drain with large amounts of water.
 - 7.2 **Storage:** Store at 2 - 8°C
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8 Exposure Controls / Personal Protection

- 8.1 **Engineering Controls:** Use with adequate ventilation.
- 8.2 **Personal Protective Equipment:**
 - 8.2.1 **Respiratory Protection:** This is a laboratory-use product for which no industrial protective equipment has been designated.
 - 8.2.2 **Eye Protection:** Safety glasses.

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- 8.2.3 Skin Protection:** Lab coat, latex gloves.
- 8.3 General Hygiene Considerations:** Wash hands after use.
- 8.4 Exposure Limits:**
- 8.4.1 ACGIH TLV-TWA:** Not Available
- 8.4.2 OSHA PEL-TWA:** Not Available
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9 Physical / Chemical Properties

- 9.1 Appearance:** Clear fluid
- 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
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10 Stability / Reactivity

- 10.1 Chemical Stability:** Stable
- 10.2 Conditions to Avoid:** Not Available
- 10.3 Incompatibility (Material to Avoid):** Heavy metals may form extremely explosive azides.
- 10.4 Hazardous Decomposition/By-Products:** Nature of decomposition products not known.
- 10.5 Hazardous Polymerization:** Not Available
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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

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11.7 Teratogenicity and Embryotoxicity:	Not Available
11.8 Mutagenicity:	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 An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Sodium azide is harmful to aquatic life with long lasting effects.

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: D1A, D3

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 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 INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.**