

## 1. Product and Company Information

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|----------------------------|--|
| <b>Product Name</b>        | Human Bone Marrow CD34+ Stem Cells, Human Bone Marrow Mononuclear Cells (BMMCs), Human Cord Blood CD14+ Monocytes, Human Cord Blood CD19+ B Cells, Human Cord Blood CD34+ Stem Cells, Human Cord Blood CD4+ T Helper Cells, Human Cord Blood CD4+/ CD45RA+ Naive T Cells, Human Cord Blood CD56+ Nk Cells, Human Cord Blood CD8+ Cytotoxic T Cells, Human Cord Blood Mononuclear Cells, Human Cord Blood CD3+ Pan T Cells, Human Mobilized Peripheral Blood CD34+ Stem Cells, Human Normal Peripheral Blood Basophils, Human Normal Peripheral Blood CD14+ Monocytes, Human Normal Peripheral Blood CD19+ B Cells, Human Normal Peripheral Blood CD3+ Pan T Cells, Human Normal Peripheral Blood CD4+ T Helper Cells, Human Normal Peripheral Blood CD4+/CD25+ Regulatory T Cells, Human Normal Peripheral Blood CD4+/CD45RA+/CD25- Naive T Cells, Human Normal Peripheral Blood CD4+/CD45RO+ Memory T Cells, Human Normal Peripheral Blood CD56+ NK Cells, Human Normal Peripheral Blood CD8+ Cytotoxic T Cells, Human Normal Peripheral Blood CD8+/CD45RA+ Naive Cytotoxic T Cells, Human Normal Peripheral Blood Eosinophils, Human Normal Peripheral Blood Neutrophils, Human Normal Peripheral Blood Platelets, Human Normal Peripheral Blood Red Blood Cells / Mature Erythrocytes, Human Normal Peripheral Blood Untouched CD19+/IgD+ Naive B Cells, Human Normal PBMC, Mobilized Peripheral Blood Mononuclear Cells, Positively Selected Normal Peripheral Blood CD19+ B Cells |
| <b>Cat. #</b>              | BMCD34, BMMN, CBCD14, CBCD19, CBCD34, CBCD4, CBCD4-45RA, CBCD56, CBCD8, CBMNC, CBCD3, MPBCD34, PBB, PBCD14, PBCD19, PBCD3, PBCD4, PBCD4-25, PBNaive, PBCD4-45RO, PBCD56, PBCD8, PBCD8-45RA, PBE, PBN, Platelet, PBRBC, PBCD19IgD, PBMC, MPBMC, PBCD19P   |
| <b>Company Information</b> | HumanCells Biosciences, LLC  |
| <b>Telephone</b>           | 1-833-692-3557   |
| <b>Application</b>         | These products are for research use only.  |

## 2. Composition/Information on Ingredients

Either frozen or live cells isolated from tissues. Live cells are shipped in liquid culture medium (a mixture of components that may include, but not limited to: inorganic salts, vitamins, amino acids, carbohydrates and other nutrients dissolved in water). Frozen cultures are shipped on dry ice in a solution that may contain 5-10% dimethyl sulfoxide (DMSO).

This substance contains no ingredients at concentrations to be considered hazardous as defined by OSHA 29CFR 1910.1200, however this product should be handled according to good lab practices, with proper personal protective equipment, proper engineering controls and within the parameters of the purchaser's chemical hygiene plan.

## 3. Hazards Identification

GHS Symbol: NA      Signal Word: NA

HMIS Rating: Health: 0 Flammability: 0 Reactivity: 0

NFPA Rating: Health: 0 Flammability: 0 Reactivity: 0

**Emergency Overview:** eye contact and/or ingestion may cause irritation. The sample should be treated as potentially infectious. Handle as at Biosafety Level 2 (BSL2) or higher.

**Biosafety:** Each donor is tested and found to negative for HIV-1, HIV-2, hepatitis B and hepatitis C. However, no known test can offer complete assurance that the viruses that cause HIV-1, HIV-2, hepatitis B and hepatitis C are not present. Proper precautions and biological containment should be taken when handling cells of human origin, due to their potential biohazardous nature. All human based products should be handled at a BSL-2 (Biosafety Level 2) or higher.

**Other hazardous:** Frozen cultures may contain 5-10% DMSO and/or 0-80% fetal bovine serum (FBS); live cell cultures may contain 0-20% FBS. Fetal bovine serum is considered non-hazardous per 21 CFR 1910.1200. Since workers differ in sensitivity to animal derived materials, HumanCells recommends that Good Laboratory Practices be exercised when using these products, including the use of gloves, eye protection, and a lab coat.

**Route(s) of entry:** ingestion, eye contact and skin contact.

**Symptom of exposure:** irritation

**Eye contact:** may cause irritation

**Skin contact:** may cause irritation

**Skin absorption:** data not available

**Inhalation:** data not available

**Ingestion:** may harmful if swallowed

**Medical conditions:** data not available

**Potential carcinogenesis:** data not available

## 4. First Aid Measures

**In case of exposure, seek medical attention as soon as possible.**

**Ingestion:** If swallowed, wash out mouth thoroughly with copious water if the person is conscious. Call a physician immediately. If person is unconscious, seek emergency medical attention. Never give anything by mouth to an unconscious person. Do not induce vomiting unless directed to do so by a physician.

**Inhalation:** If the person is conscious, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek emergency medical attention.

**Skin Exposure:** In case of skin contact, flush with copious amounts of water for at least 15 minutes followed by washing with soap and copious amounts of water. Remove contaminated clothing and shoes.

**Eye Exposure:** In case of contact with eyes, flush immediately with plenty of water for at least 15 minutes with eyelids separated and seek medical advice.

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

## 5. Fire Fighting Measures

**Flammability:** not flammable

**Autoignition Temperature:** N/A

**Flash Point:** N/A

**Extinguish Media:** Any media suitable for surrounding fire such as water spray, carbon dioxide, dry chemical powder, Halon (where regulations permit) or appropriate foam.

## 6. Accidental Release Measures

In case of spill or leak, wear chemical-resistant gloves and contain the spill immediately and decontaminate using a strong solution of sodium hypochlorite (bleach). Volume of bleach should not be less than 10% of the spill volume. Allow at least 10 minutes for neutralization. Absorb spill using suitable absorbent materials. Ventilate the area thoroughly after cleanup is complete.

## 7. Handling and Storage

**Handling:** Professionally trained lab personnel following good laboratory practice should handle product. Always wear protective gloves, lab coats and eye protection when handling product. Avoid skin contact, inhalation or swallowing.

**Storage:** Store in the vapor phase of liquid nitrogen storage

## 8. Exposure Controls and Personal Protective Equipment

Safety shower and eye bath. Mechanical exhaust required. No respiratory protection will be needed under normal Good Laboratory Practices operating conditions. Use supplied-air respiratory equipment as required by law. Compatible chemical resistant gloves should be the minimum hand protection. Chemical safety goggles/glasses should be the minimum eye protection. Wash hands and other exposed areas thoroughly with mild soap and water before eating, drinking and when leaving the laboratory. Wash contaminated clothing before reuse.

## 9. Physical and Chemical Properties

**Physical State:** Frozen or liquid

**Color:** Yellowish / orange color

**Chemical Stability:** Stable

**PH:** ~7

**Boiling Point:** 100°C

**Freezing Point:** 0°C

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**Hazardous Decomposition / By-Products:** No information available

**Hazardous Polymerization:** Will not occur

## 10. Stability and Reactivity

Stable under normal conditions of use and storage.

## 11. Toxicological Information

The toxicological properties of these products have not been fully investigated.

## 12. Disposal Considerations

Observe all federal, state and local environmental regulations.

## 13. Transport Information

This substance is considered to be non-hazardous for ground or air transport.

## 14. Regulatory Information

These products are for research and development use only, not for clinical or drug use, and are not SARA listed.

**California Proposition 65:** These products do not contain chemicals listed under Proposition 65.

## 15. Other Information

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. HumanCells Biosciences shall have no liability for any direct, indirect, consequential or incidental damages arising out of the use, the results of use, the inability to use, the handling or contact with this product. The information contained in this Material Safety Data Sheet (MSDS) is current as of the Date Prepared shown under the first page of this document and may be subject to amendment by HumanCells Biosciences.