**Section 1- Product and Company Information**

**Product Name**
CRYPRESERVED OR FRESH HUMAN PERIPHERAL BLOOD MONONUCLEAR CELLS (PBMC), NORMAL HUMAN PERIPHERAL BLOOD CRYOPRESERVED, DIABETIC HUMAN PERIPHERAL BLOOD MONONUCLEAR CELLS; HUMAN PERIPHERAL BLOOD MONONUCLEAR CELLS-CUSTOM DONOR; NAIVE CD4+T HELPER CELL; CRYOPRESERVED OR FRESH HUMAN NORMAL SERUM, HUMAN PLASMA; HUMAN PLATELET LYSATE

**Product Number**
SER-PBMC-F, SER-PBMC, SER-PBMC-200, SER-PBMC-200-F; SER-PBMC-CUSTOM; SER-D-PBMC-F; SER-PBMC4+TH-N-F, HSER-10ML, HSER-xxxML, SER-PL-xx; SER-HPL

**Company**
ZenBio, Inc

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**City, State, Zip, Country**
Research Triangle Park, NC 27709 USA

**Technical Phone**
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**Section 2- Composition/Information on Ingredients**

Peripheral blood mononuclear cells, serum and plasma are isolated from blood of consented adult donors. Frozen cultures may contain 0-90% fetal bovine serum and 5-20% dimethylsulfoxide (DMSO) CAS #67-68-5. Human serum is isolated from the blood of consented adult donors.

**Section 3 Hazards Identification**

Each donor is tested and found non-reactive to viral DNA from HIV-1, HIV-2, HTLV I, HTLV II, hepatitis B, syphilis, and hepatitis C. However, no known test can offer complete assurance that the viruses that cause HIV-1, HIV-2, HTLV I, HTLV II, 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.

Frozen cultures may contain 5-20% DMSO and/or 0-90% fetal bovine serum (FBS). Fetal bovine serum is considered non-hazardous per 21 CFR 1910.1200. Since workers differ in sensitivity to animal derived materials, Zen-Bio recommends that Good Laboratory Practices be exercised when using these products, including the use of gloves, eye protection, and a lab coat.

Dimethylsulfoxide (DMSO) See MSDS for DMSO

**Section 4 First Aid Measures**

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**Section 5 Fire Fighting Measures**

Extinguishing Media: Any media suitable for surrounding fire. No unusual fire or explosion hazards.

**Section 6 Accidental Release Measures**
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.

Section 7 Handling and Storage

Store appropriately in liquid nitrogen upon arrival.

<table>
<thead>
<tr>
<th>Storage pressure:</th>
<th>Ambient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handling:</td>
<td>Keep tightly closed when not in use.</td>
</tr>
<tr>
<td>Storage procedures:</td>
<td>Suitable for most general chemical storage areas.</td>
</tr>
</tbody>
</table>

Section 8 Exposure Controls/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.

Section 9 Physical and Chemical Properties

Physical state is clear to yellowish-brown liquid or clear to reddish liquid.

Section 10 Stability and Reactivity

Stable.

Section 11 Toxicological Information

Not applicable.

Section 12 Ecological Information

Data not yet available.

Section 13 Disposal Considerations

Observe all federal, state and local environmental regulations.

Section 14 Transport Information

US DOT Hazard Classification / IATA AIR TRANSPORTATION

Proper shipping name: Biological Substance, Category B
UN Number: UN3373
Hazard Class: Class 6.2
DOT Packaging requirements: Not applicable

Section 15 Regulatory Information

OSHA Process Safety Standard: This material is not known to be hazardous b the OSHA Highly Hazardous Process Safety Standard, 29CFR 1910.119.

Section 16 Other Information

Disclaimer:

For research use only. Not for clinical, drug, household or other uses.
The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Zen-Bio 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.