1. PRODUCT AND COMPANY INFORMATION

This Material Safety Data Sheet is for the following products:

**MANUFACTURER:**
Immucor, Inc.
3130 Gateway Drive
Norcross, GA 30071

**Manufacturer's Phone:** 855-466-8267 (US and Canada)
770-441-2051

**Emergency Phone:** 855-466-8267 (US and Canada)

**AUTHORIZED REPRESENTATIVE (Europe):**
Immucor Medizinische Diagnostik GmbH
Adam-Opel-Strasse 26 A
63322 Rodermark
Germany

**Authorized Rep. Phone:** +49 6074 84200

**Emergency Phone:** +49 6074 84200

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Product Code</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gamma-clone® Anti-B (Murine Monoclonal)</td>
<td>0413203</td>
<td>3x10mL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Product Code</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gamma-clone® Anti-B (Murine Monoclonal)</td>
<td>0413210</td>
<td>10x10mL</td>
</tr>
</tbody>
</table>

**Specific Use:** Intended to be used in the detection and identification of certain properties of cell and serum components of blood prior to transfusion.

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENTS</th>
<th>CAS NUMBER</th>
<th>CONCENTRATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bovine Albumin</td>
<td>9048-46-8</td>
<td>1-10%</td>
</tr>
<tr>
<td>Sodium Chloride</td>
<td>7647-14-5</td>
<td>1-5%</td>
</tr>
<tr>
<td>Sodium Azide</td>
<td>26628-22-8</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

**Inhalation:** May cause irritation to respiratory tract and mucous membranes, sore throat, coughing, dizziness, shortness of breath and fainting. May be absorbed through inhalation.

**Ingestion:** May cause breathlessness, pulmonary edema and rapid heartbeat within 5 minutes. Nausea, vomiting, headache, restlessness and diarrhea may occur within 15 minutes. Other symptoms may include low blood pressure, abnormal breathing, reduced body temperature, reduced body pH, convulsions, collapse and death.

**Eye Contact:** Causes irritation, redness, pain and blurred vision.

**Skin Contact:** Causes redness, irritation and pain. May be absorbed through skin.

4. FIRST AID MEASURES

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Ingestion:** DO NOT induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**Eye Contact:** Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

**Skin Contact:** Wipe off affected area and flush with plenty of soap and water for 15 minutes. Remove contaminated clothing and shoes. Seek medical attention. Wash clothing and shoes thoroughly before reuse.

**Medical Conditions Possibly Aggravated:** None known.
5. FIRE-FIGHTING MEASURES

Estimated Explosive Limits (% By volume in air):
- Lower Explosive Limit: N/A
- Upper Explosive Limit: N/A

Flash Point: N/A
Autoignition Temperature: N/A

Fire and Explosion Hazards: N/A

Extinguishing Media: Use appropriate extinguishing media for surrounding fire: dry chemical, carbon dioxide, water spray or regular foam.

Special Fire Fighting Procedures: Wear appropriate personal protective equipment. Fight fires only if properly trained. Move containers from fire area if it can be accomplished without risk. Use water to keep containers cool. Dike fire control water.

Unusual Fire and Explosion Hazards: Avoid breathing vapors or dusts. Keep upwind.

Hazardous Decomposition Products: N/A

6. ACCIDENTAL RELEASE MEASURES

Action to Be Taken if Material Is Released or Spilled: Remove all sources of ignition. Do not touch spilled material. Stop the release if you can do it without risk. Isolate the area and deny entry. Absorb the spill and place used absorbent material into approved containers for later disposal. Decontaminate the area with an approved disinfectant. Cover the area with paper towels and pour disinfectant over the area. Wipe the area until clean and dry.

7. HANDLING AND STORAGE

Handling: Food and drink should not be consumed, nor tobacco products used, nor cosmetics applied in areas where chemicals are stored or handled.

Storage: Store away from incompatible substances. Store in tightly closed containers. Avoid contact with open wounds and body fluids. Wash thoroughly after handling and before eating, drinking or smoking. Observe federal, state and local regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>INGREDIENTS</th>
<th>CAS NUMBER</th>
<th>CONCENTRATION</th>
<th>OSHA PEL-TWA</th>
<th>ACGIH-TWA TLV</th>
<th>ACGIH-STEL/CEIL(C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bovine Albumin</td>
<td>9048-46-8</td>
<td>1-10%</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Sodium Chloride</td>
<td>7647-14-5</td>
<td>1-5%</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Sodium Azide</td>
<td>26628-22-8</td>
<td>0.1%</td>
<td>N/A</td>
<td>N/A</td>
<td>C 0.11 ppm as HN₃ vapor</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>C 0.29 mg/m³ as NaN₃</td>
</tr>
</tbody>
</table>

Engineering Controls: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below permissible air concentrations.

Eye/Face Protection: Use chemical safety goggles and/or full face shield where splashing of the solution is possible. Maintain eyewash fountain and quick drench facilities in the work area.

Skin Protection: Clothing such as gowns, aprons, or lab coats should be worn when working with this material. Protective gloves should be worn while handling materials and/or surfaces, which are potentially infectious.

Respiratory Protection: A NIOSH/MSHA approved respirator should be worn where airborne exposures may exceed OSHA/ACGIH exposure limits.

Other/General Protection: Hood, surgical caps, boots and shoe covers should be worn in areas with significant quantities of infectious materials.
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Clear yellow liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>N/A</td>
</tr>
<tr>
<td>pH</td>
<td>6-8</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>212 °F</td>
</tr>
<tr>
<td>Flash Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>18 mm Hg</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>N/A (Air=1)</td>
</tr>
<tr>
<td>Density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Specific Gravity (H2O = 1)</td>
<td>1</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>N/A</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Chemical Stability: Stable

Conditions to Avoid: Fire and excessive heat. May decompose in heat.

Incompatibility: Benzoyl chloride, potassium hydroxide, bromine, carbon disulfide, chromyl chloride, copper, dibromomalonenitrile, dimethyl sulfate, lead, barium carbonate, sulfuric acid, nitric acid, strong acids and substances that react violently with water.

Hazardous Decomposition Products: Sodium azide when heated to decomposition liberates nitrogen gas and sodium, which is explosive.

Hazardous Polymerization: Will not occur.

Possibility of Hazardous Reaction: Not determined.

11. TOXICOLOGICAL INFORMATION

Acute Effects: This product is manufactured from human blood and therefore must be considered to be capable of transmitting disease. The substance irritates the eyes, the skin and the respiratory tract. Exposure above Occupational Exposure Limits could cause effects on the nervous system. Glycine is a non-essential amino acid that is relatively non-toxic. Extremely high particulate concentrations may cause coughing and eye irritation. If large quantities are ingested, nausea may occur.

Chronic Effects: No information found.

Listed Carcinogens: None.

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with applicable federal, state, and local government regulations. Waste generators must determine whether a discarded material is classified as a hazardous waste. USEPA guidelines for the classification determination are listed in 40 CFR parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
14. TRANSPORTATION INFORMATION

UN ID Number: N/A
DOT Proper Shipping Name: N/A
Transport Hazard Class: N/A
Packaging Group: N/A

15. REGULATORY INFORMATION

TSCA: All components of this product are listed on the TSCA inventory.
CERCLA Reportable Quantity: None
Clean Air Amendments-Hazardous Air Pollutant (HAPS): None
California State Proposition 65: None

SARA Title III:
Section 302: None
Section 312: None
Section 313: None

16. OTHER INFORMATION

Symbol: Xn
R-Phrase: 22
S-Phrases: N/A

Hazardous Material Identification System (HMIS):

| HEALTH: | Rating are based on 0-4 rating scale, with 0 representing minimal hazard or risk, and 4 representing severe hazard or risk. |
| FLAMMABILITY: | * Represents materials with chronic effects |
| REACTIVITY: | |
| PERSONAL PROTECTION: | Letter code used to determine correct PPE to handle material |

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