Safety Data Sheet

Section 1: Chemical Identification

Chemical Name: Recombinant Murine Interferon γ
Catalog Number: 1360-06
Recommended use: This product is not for use in humans. It is intended for research purposes only.
Distributed by: Gold Biotechnology, Inc.
1328 Ashby Rd.
St. Louis, MO 63132
Phone: (314) 890-8778
Fax: (314) 890-0503
Email: contactgoldbio86@goldbio.com
Emergency Phone: (800)248-7609 (Monday-Friday, 9:00 a.m. – 5:00 p.m. CST)

Section 2: Hazardous Information

Caution
The chemical, physical, and toxicological properties of this product have not been thoroughly investigated. Exercise due care.

GHS Classification
This product is not subject to hazardous classification

OSHA Hazards
No known hazards.

Potential Health Effects
Eye: May cause eye irritation.
Skin: May be harmful if absorbed through skin. May cause skin irritation.
Ingestion: May be harmful if swallowed
Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Section 3: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>CAS No.</th>
<th>EC No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Murine IFNγ</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS No.</th>
<th>EC No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NaCl</td>
<td>7647-14-5</td>
<td>231-598-3</td>
</tr>
<tr>
<td>Na₂HPO₄ · 12H₂O</td>
<td>7558-79-4</td>
<td>231-448-7</td>
</tr>
<tr>
<td>NaH₂PO₄ · 2H₂O</td>
<td>7558-80-7</td>
<td>231-449-2</td>
</tr>
</tbody>
</table>
Section 4: First Aid Measures

**Inhalation:** If breathed in, move person into fresh air. If not breathing give artificial respiration

**Skin:** In case of skin contact, wash off with soap and plenty of water.

**Eye:** In case of eye contact, flush eyes with water as a precaution.

**Ingestion:** If swallowed, never give anything by mouth to an unconscious person. Rinse mouth with water.

Section 5: Fire Fighting Measures

**Suitable extinguishing media:** Water, carbon dioxide, dry chemical powder or alcohol-resistant foam.

**Specific hazards arising from the chemical:** Emits toxic fumes under fire conditions.

**Special protective actions for fire-fighters:** Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Section 6: Accidental Release Measures

**In Case of Leak or Spill:** Evacuate area

**Personal precautions, protective equipment and emergency procedures:** Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

**Environmental precautions:** Do not let product enter drain.

**Methods and materials for containment and cleaning up:** Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7: Handling and Storage

**Precautions for safe handling:** Provide appropriate ventilation at places where dust is formed. Normal measures for preventive fire protection.

**Conditions for safe storage, including any incompatibilities:** Store in a tightly closed container. Keep container tightly closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep in properly labeled containers.

Section 8: Exposure Controls / Personal Protection

**Control parameters:** Contains no substances with occupational exposure limit values.
Appropriate engineering controls: Mechanical exhaust required.

Personal Protective Equipment (PPE)

Eye/Face Protection: Avoid contact with eyes, wear safety goggles or face shield.

Skin Protection: Avoid contact with skin and clothing, chemical-resistant gloves required. Wash skin thoroughly and remove contaminated clothing after handling.

Respiratory Protection: Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Other Protective Clothing or Equipment: Maintain general industrial hygiene practice.

Section 9: Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Powder, lyophilized</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>15.5 kDa</td>
</tr>
<tr>
<td>pH</td>
<td>7.4±0.5</td>
</tr>
<tr>
<td>BP/HP Range</td>
<td>Not available</td>
</tr>
<tr>
<td>MP/MP Range</td>
<td>Not available</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not available</td>
</tr>
<tr>
<td>Saturated Vapor Conc.</td>
<td>Not available</td>
</tr>
<tr>
<td>SG/Density</td>
<td>Not available</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>Not available</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>Volatile%</td>
<td>Not available</td>
</tr>
<tr>
<td>VOC Content</td>
<td>Not available</td>
</tr>
<tr>
<td>Water Content</td>
<td>Not available</td>
</tr>
<tr>
<td>Solvent Content</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
</tr>
<tr>
<td>Surface Tension</td>
<td>Not available</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temp.</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosion Limits</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not available</td>
</tr>
<tr>
<td>Autoignition Temp</td>
<td>Not available</td>
</tr>
<tr>
<td>Refractive Index</td>
<td>Not available</td>
</tr>
<tr>
<td>Optical Rotation</td>
<td>Not available</td>
</tr>
<tr>
<td>Miscellaneous Data</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Not available</td>
</tr>
</tbody>
</table>
Section 10: Stability and Reactivity Data

**Reactivity:** Not available.

**Chemical stability:** Stable under normal temperatures and pressures.

**Hazardous Polymerization:** Will not occur.

**Conditions to avoid:** Not available.

**Hazardous decomposition products:** Hazardous decomposition products formed under fire conditions. Nature of decomposition products not known.

Section 11: Toxicological Information

**Acute toxicity:**
Not available.

**Skin corrosion/irritation:**
May cause irritation.

**Respiratory or skin sensitization:**
May cause irritation of respiratory tract.

**Germ cell mutagenicity:**
Not available.

**Carcinogenicity:**
- **IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- **ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- **NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- **OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:**
Not available.

**STOT-single exposure:**
Not available.

**STOT-repeated exposure:**
Not available.

**Aspiration hazard:**
Not available.
Likely routes of exposure:
Respiratory organs, skin, and eyes.

Symptoms of exposure:
May cause irritation.

Section 12: Ecological Information

Toxicity:
Not available.

Persistence and degradability:
Not available.

Bioaccumulative potential:
Not available.

Mobility in soil:
Not available.

Other adverse effects:
Not available.

Section 13: Disposal Considerations

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14: Transport Information

US Department of Transportation (DOT)
This material is considered to be non-hazardous for transport.

International Maritime Dangerous Goods (IMDG)
This material is considered to be non-hazardous for transport.

International Air Transport Association (IATA)
This material is considered to be non-hazardous for transport.

Section 15: Regulatory Information

Caution:
The chemical, physical, and toxicological properties of this product have not been thoroughly investigated. Exercise due care.

OSHA Hazards:
No known OSHA hazards.

SARA 302 Components:
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components:**
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards:**
No SARA Hazard

**WHMIS Classification:**
This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

**DSL:**
No

**NDSL:**
No

**Section 16: Other Information**

While Gold Biotechnology, Inc. believes the information contained herein to be true and accurate, it has relied on information provided by others. Gold Biotechnology, INC. makes no warranties, express or implied, as to the accuracy or adequacy of the information contained herein or with respect to the results to be obtained from the use of the product. Gold Biotechnology, Inc. disclaims all liability with respect to the use of this product, including without limitation, liability for injury to the user or third-party persons.

Last updated: 01/12/2015