Material Safety Data Sheet

Section 1 - Product and Company Information

Product Name: Chorionic gonadotropin, human
Product Number: CG10
Brand: Sigma Chemical
Company: Sigma-Aldrich
Street Address: 3050 Spruce Street
City, State, Zip, Country: SAINT LOUIS, MO 63103,US
Technical Phone: 800-325-5832
Emergency Phone: 314-776-6555
Fax: 600-325-5052

Section 2 - Composition/Information on Ingredient

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>CAS #</th>
<th>SARA 311</th>
<th>FC no</th>
<th>Annex 1 Index Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHORIONIC GONADOTROPIN FROM HUMAN PREGNANCY URINE</td>
<td>9002-61-3</td>
<td>No</td>
<td>232-660-2</td>
<td></td>
</tr>
</tbody>
</table>

Formula: Human source material.
Chemical Family: Human chorionic gonadotropin
Synonyms: Ambinon, Arbutin S, APL, APL (hormone), Apointer, Chorion, Chorion gonadotropin, Chorionic, Chorionic gonadotropin, Chorionic gonadotropin hormone, Chorionic gonadotropin, Chorion, Guanatet, HCG, Human chorionic gonadotropin, Hugoline, Phyto, Pregalin, Preglin, Primogynyl, Rainsone, Symbaphorin

Section 3 - Hazards Identification

Emergency Overview
Bacterial: Handle as if capable of transmitting infectious agents.

HMS Rating
Health: 0 Flammability: 0 Reactivity: 0 Special Hazard(s): Human Source

NFPA Rating
Health: 0 Flammability: 0 Reactivity: 0 Special Hazard(s): Human Source

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure
If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately.

Inhalation Exposure
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Section 5 - Fire Fighting Measures

Autoignition Temp: N/A
Extinguishing Media
Suitable: Use extinguishing media appropriate to surrounding fire conditions.

Firefighting Protective Equipment
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s)
Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

Procedure(s) of Personal Protection(s)
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

Section 7 - Handling and Storage

Handling
Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage
Suitable: Keep tightly closed. Store at 2-8°C

Section 8 - Exposure Controls / PPE

Engineering Controls
Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment
Respiratory
Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator.
Hand
Compostible chemical resistant gloves.
Eye
Chemical safety goggles.
Section 9 - Physical/Chemical Properties

Appearance
Physical State
solid

Molecular Weight
N/A

pH
N/A

BP/BP Range
N/A

MP/VP Range
N/A

Freezing Point
N/A

Vapor Pressure
N/A

Vapor Density
N/A

Saturated Vapor Conc.
N/A

SG/Density
N/A

Bulk Density
N/A

Odor Threshold
N/A

Volatile%
N/A

VOC Content
N/A

Water Content
N/A

Solvent Content
N/A

Evaporation Rate
N/A

Viscosity
N/A

Partition Coefficient
N/A

Decomposition Temp.
N/A

Flash Point 1°F
N/A

Flash Point 2°C
N/A

Explosion Limits
N/A

Flammability
N/A

Autoignition Temp
N/A

Solubility
N/A

N/A = not available

Section 10 - Stability and Reactivity

Stability
Stable

Materials to Avoid
Strong oxidizing agents

Hazardous Decomposition Products
Hazardous Decomposition Products
Carbon monoxide, carbon dioxide, and nitrogen oxides

Section 11 - Toxicological Information

Hazardous Polymerization
Hazardous Polymerization
Will not occur.

Route of Exposure
Skin Contact
May cause skin irritation.

Skin Absorption
May be harmful if absorbed through the skin.

Eye Contact
May cause eye irritation.

Inhalation
May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Ingestion
May be harmful if swallowed.

Signs and Symptoms of Exposure
Potentially biohazardous material.

RTECS Number: MD962000

Chronic Exposure - Teratogen

<table>
<thead>
<tr>
<th>Species</th>
<th>Route of Application</th>
<th>Exposure Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rat</td>
<td>Subcutaneous</td>
<td>(15-172 PREG)</td>
</tr>
<tr>
<td>Hamster</td>
<td>Intraperitoneal</td>
<td>(4-8 D PREG)</td>
</tr>
</tbody>
</table>

Chronic Exposure - Reproductive Hazard

<table>
<thead>
<tr>
<th>Species</th>
<th>Route of Application</th>
<th>Exposure Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woman</td>
<td>Unreported</td>
<td>(6D PREG)</td>
</tr>
<tr>
<td>Rat</td>
<td>Intraperitoneal</td>
<td>(1-3D PREG)</td>
</tr>
<tr>
<td>Rat</td>
<td>Intraperitoneal</td>
<td>(10D PREG)</td>
</tr>
<tr>
<td>Rat</td>
<td>Intraperitoneal</td>
<td>(1-2D PREG)</td>
</tr>
<tr>
<td>Rat</td>
<td>Subcutaneous</td>
<td>(7-13D PREG)</td>
</tr>
<tr>
<td>Rat</td>
<td>Subcutaneous</td>
<td>(40 M(ALE))</td>
</tr>
<tr>
<td>Rat</td>
<td>Intravenous</td>
<td>(10 PREG)</td>
</tr>
<tr>
<td>Rat</td>
<td>Intramuscular</td>
<td>(10 D PREG)</td>
</tr>
<tr>
<td>Rat</td>
<td>Parenteral</td>
<td>(70 M(ALE))</td>
</tr>
<tr>
<td>Rat</td>
<td>Parenteral</td>
<td>(10 M(ALE))</td>
</tr>
<tr>
<td>Rat</td>
<td>Parenteral</td>
<td>(1-2D PREG)</td>
</tr>
<tr>
<td>Rat</td>
<td>Unreported</td>
<td>(7-13 D PREG)</td>
</tr>
</tbody>
</table>

Hazardous Decomposition Products
Carbon monoxide, carbon dioxide, and nitrogen oxides

Sigma Chemical - CG10
Page 3
Sigma-Aldrich Corporation
www.sigmaaldrich.com

Sigma Chemical - CG10
Page 4
Sigma-Aldrich Corporation
www.sigmaaldrich.com
### Section 12 - Ecological Information

No data available.

### Section 13 - Disposal Considerations

**Appropriate Method of Disposal of Substance or Preparation**
- Contact a licensed professional waste disposal service to dispose of this material.
- Disposal should be made in accordance with existing disposal practices employed for infectious waste at your institution.
- Observe all federal, state, and local environmental regulations.

### Section 14 - Transport Information

**DOT**
- **Proper Shipping Name:** None
- **Non-Hazardous for Transport** This substance is considered to be nonhazardous for transport.

**IATA**
- **Non-Hazardous for Air Transport** Non-hazardous for air transport.

### Section 15 - Regulatory Information

**EU Additional Classification**
- **Symbol of Danger:** B
- **Indication of Danger** Biohazard.

**US Classification and Label Text**
- **Indication of Danger** Biohazard.
- **US Statements** Handle as if capable of transmitting infectious agents.

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**United States Regulatory Information**

SARA Listed: No

**Canada Regulatory Information**

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

DISL: No
NDSL: No

**Section 16 - Other Information**

**Disclaimer**
- For R&D use only. Not for drug, household or other uses.

**Warranty**
- The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc. shall not be held liable for any damage resulting from handling or form contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright © 2008 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.