Antihemophilic Factor/von Willebrand Factor Complex (Human), Humate-P®

1. PRODUCT AND MANUFACTURER IDENTIFICATION

Product Name: Humate-P®
Manufacturer: CSL Behring L.L.C.
Address: 1020 First Avenue
PO Box 61501
King of Prussia, PA 19406-0901
Telephone Number: (610) 878-4000
Emergency Product Information: (800) 504-5434
Emergency Response: (800) 424-9300

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Common Name</th>
<th>CAS No.</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upon reconstitution with the volume of diluent provided (Sterile Diluent for Humate-P®), each mL of Humate-P® contains:</td>
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<tr>
<td>20-40 IU Factor VIII activity</td>
<td>NA</td>
<td>Active ingredient</td>
</tr>
<tr>
<td>50-100 IU VWF:RCo activity</td>
<td>NA</td>
<td>Active Ingredient</td>
</tr>
<tr>
<td>Albumin (Human), USP (4-8 mg)</td>
<td>NA</td>
<td>Stabilizer</td>
</tr>
<tr>
<td>Other proteins (1-7 mg)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total proteins (5-15 mg)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Chloride, USP (2-5.3 mg)</td>
<td>7647-14-5</td>
<td>Osmotic balance adjustment</td>
</tr>
<tr>
<td>Glycine, USP (15-33 mg)</td>
<td>56-40-6</td>
<td>Stabilizer</td>
</tr>
<tr>
<td>Sodium Citrate, USP (3.5-9.3 mg)</td>
<td>68-04-2</td>
<td>Stabilizer</td>
</tr>
<tr>
<td>Water For Injection, USP</td>
<td>7732-18-5</td>
<td>Volume adjustment</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

Potential Health Effects
This product has been prepared from the pooled plasma of healthy adult donors. Each plasma donation has been tested for the absence of antibodies against HIV-1, HIV-2 and Hepatitis C, as well as Hepatitis B surface antigens. In addition, the product underwent a minimum of two different virus reduction procedures. The final fractionation pool used in the manufacture of this product has also been tested for antibodies against HIV-1/HIV-2 and Hepatitis B surface antigen. Furthermore, only fractionation pools which are nonreactive for HCV RNA, HIV RNA, HAV RNA, and negative for HBV DNA, and high titer Parvovirus B19 DNA by Polymerase Chain Reaction (PCR) Technology are utilized. However, the risk of infectivity due to known or as yet unknown pathogens cannot be totally eliminated from this product.

No adverse health effects anticipated with normal handling and use in appropriate medical setting. Medical implications of therapeutic use are described in product package insert or may be found in the Physicians’ Desk Reference.

Emergency Overview:
This product is a sterile prescription pharmaceutical. It is to be administered only at the order of a licensed physician. This product is safe when used for its intended purpose and administered as directed by a physician. In addition, no adverse health effects are anticipated as a result of incidental contact or exposure to this product by those handling it or administering it in a therapeutic setting. More detailed information is available in the product package insert. Please report adverse events in patients using this product to the manufacturer at the telephone number listed above.

Eye
No data. No adverse health effects reported nor anticipated.
Skin Contact
No data. No adverse health effects reported nor anticipated.

Skin Absorption
This product is not absorbed through the skin.

Ingestion
Not intended for oral use. Relatively non-toxic if ingested.

Chronic Effects/Carcinogenicity
None known or anticipated under normal handling and exposure conditions.

4. FIRST AID MEASURES

Eyes
Flush with water for 15-20 minutes. If irritation develops, seek medical attention.

Skin
Wash with soap and water. If irritation or other symptoms develop, seek medical attention.

Ingestion
Rinse from mouth and seek medical guidance. Induce vomiting only as directed by medical personnel. Never give anything by mouth to an unconscious person.

Inhalation
If inhaled, remove to fresh air. Seek medical attention if symptoms develop or if breathing is difficult.

5. FIRE FIGHTING MEASURES

FLAMMABILITY
Flash Point: NA
Flammable Limits in Air-Lower: NA
Flammable Limits in Air-Upper: NA
Auto-Ignition Temperature: NA

General Hazards
Product is not flammable. The only potential fire hazard would involve packaging material.

Fire Fighting Extinguishing Media
Packaging material fires may be extinguished with water, carbon dioxide, or dry chemical.

Fire Fighting Instructions
Fire fighting personnel should respond with appropriate protective clothing, firefighting gear, and breathing equipment as trained. All other personnel should exit the area and proceed to a gathering point in an area unaffected by the fire and smoke.

Hazardous Combustion Products
Packaging material fire may produce carbon monoxide and other gaseous asphyxiants plus airborne particulate matter.
6. ACCIDENTAL RELEASE MEASURES

Large Spill
Absorb spills with material suitable for aqueous solutions and dispose in solid waste container, or mop spilled material with detergent/water or bleach/water solution and dispose in sanitary sewer. Ventilate area, if desired.

Small Spill
Clean area of spill with wetted toweling and dispose in solid waste container, or follow procedure for large spills.

7. HANDLING AND STORAGE

Special Handling
Prevent physical damage to package to avoid breakage and spilling.

Special Storage
Store in accordance with the conditions specified in the product package insert.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Eye Protection
None required for protection against the product. Eye protection may be required by procedure of administration.

Skin Protection
None required for protection against the product. Medical-grade examination or surgical gloves may be required by procedure of administration.

Respiratory Protection
None required.

Engineering Controls
Not applicable

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form of Pure Concentrate
Stable, off-white to faint yellow powder (lyophilized)

As reconstituted:
Physical Form: Clear aqueous solution
Color: Colorless to faint yellow
Odor: Unspecified
Boiling Point: Unspecified
Melting Point: Unspecified
Freezing Point: Unspecified
pH: 6.9 ± 0.5
Solubility in Water: Complete
Specific Gravity: Unspecified
Decomposition Temperature: Unspecified
Odor Threshold: Unspecified
Evaporation Rate: Unspecified
Vapor Pressure: Unspecified
Vapor Density: Unspecified
10. STABILITY AND REACTIVITY

**Stability**
Stable for period indicated on the label when stored at conditions specified in product package insert.

**Incompatibility**
No known incompatibilities.

**Hazardous Decomposition Products**
No known hazardous decomposition products.

**Hazardous Polymerization**
Hazardous polymerization will not occur.

**General Information**
No additional information.

11. TOXICOLOGICAL INFORMATION

**Toxicology Text**
The pure, lyophilized concentrate of Humate-P® is a sterile, stable off-white to pale yellow powder with biological activity indicated in the treatment of Hemophilia A. When reconstituted into its dose-form for intravenous administration, this product is a sterile, aqueous solution containing human antihemophilic factor (human), stabilizers, and osmotic agents. It is not expected to be toxic by ingestion or a skin/eye irritant. More comprehensive and detailed product information is contained in the product package insert or may be found in the Physicians’ Desk Reference.

12. ECOLOGICAL INFORMATION

No ecological damage or persistence in the environment expected under normal conditions of use or with proper disposal. Environmental fate and transport of this product have not been studied.

13. DISPOSAL CONSIDERATIONS

**Disposal Information**
Not classified as hazardous waste. Observe all federal, state, and local regulations.

**Waste Disposal Methods**
Waste must be disposed in accordance with federal, state and local environmental regulations. Uncontaminated product may be disposed by flushing down the sanitary sewer, or by mixing with a liquid sorbent and then placing mixture in the solid waste container for disposal. Incineration is the preferred method of disposal for any contaminated product.

14. TRANSPORT INFORMATION

**Proper Shipping Name:** Not Regulated
**Hazard Class:** Not Required

**Transportation of Hazardous Material Description**
Domestic DOT Label: None; International (IMO) label: Drugs/Medicines. Ship according to DOT and/or IATA regulations.
15. REGULATORY INFORMATION

TSCA
This material is a biological product regulated by the United States Food and Drug Administration (FDA).

CERCLA
NA

SARA 302
NA

SARA 313
NA

16. OTHER INFORMATION

Prepared By: CSL Behring Health Safety & Environment Dept.
Approved By: Director, Health Safety Environment & Risk Management
Approved Date: 1/22/10
Supersedes Date: All prior versions of MSDS

Other Information
The information contained herein is based upon data considered true and accurate. CSL Behring makes no warranties, express or implied, as to the adequacy of the information contained herein. This information is offered solely for the user's consideration, investigation, and verification. Report to the manufacturer any allegations of health effects resulting from handling or accidental contact with this material.

Manufacturing Location: CSL Behring GmbH
PO Box 1230
35002 Marburg
Germany
+49-6421-39-12

Revision Summary
1/22/10 Potential Health Effects revision and minor editorial changes.
10/11/07 Company name change.
04/11/05 Updated composition/ingredient information, complete product name listed.
04/01/05 Updated manufacturer identification.
7/20/00 Updated manufacturer identification and transportation labeling information.
02/16/98 Updated format, updated hazard and handling information.
02/16/98 Original Aventis Behring MSDS prepared from predecessor MSDS and other product safety information.