

Summary Basis of Approval  
OB-NDA 98-0123

Product: Anticoagulant Sodium Citrate 4% w/v Solution, U.S.P. in Plastic Bag

Company: Haemonetics Corporation  
400 Wood Road  
Braintree, MA 02184

Date of Application: January 22, 1998

I. Indication for Use:

The product is for use only with automated apheresis devices in the collection of human plasma or in performing therapeutic plasma exchange procedures. The 4% Sodium Citrate is metered by the apheresis machine into the collected whole blood, the plasma is collected into a plasma collection bag and the cellular components are returned to the donor. The anticoagulant is not to be infused directly into the donor.

II. Dosage Form:

The 4% Sodium Citrate is used in an anticoagulant to whole blood ratio of 1:16. A flexible PVC plastic bag contains 250 mL of 4% Sodium Citrate and has a filling leg and a twist-off closure which accepts a spike from an apheresis collection set. The plastic bag is contained in an overwrap which is added prior to sterilization.

III. Manufacturing and Controls:

A. Manufacturing:

No new drug substance is involved in this NDA. The formulation for the 4% Sodium Citrate is in accordance with USP XXIII. The plastic bags are made by           . The anticoagulant solution is manufactured and filled into bags at the Haemonetics Corporation facility in Union, SC. Testing is performed on the environment, raw materials, in-process and finished products to assure that appropriate requirements and specifications are met.

B. Stability Studies:

Data was submitted on three lots of product held at room temperature and at 40°C for 6 months. **z**

C. Methods of Validation

All critical manufacturing steps, including sterilization and all systems have been successfully validated and are part of the NDA.

D. Labeling:

Draft labeling has been submitted. No trade name is being used. The Directions for Use are contained in the appropriate apheresis machine manual.

E. Establishment Inspection:

The Union, SC facility had a Pre-Approval Inspection for Dextrose 5% Injection, USP May 2 - 6, and June 29, 1994. The facility had a regularly scheduled inspection March 17 - 20, 1997.

F. Environmental Impact Statement:

4% Sodium Citrate solution is exempted per 21 CFR 25.24(c)(4).

IV. Pharmacokinetics and Bioavailability:

Since no new drug substance is involved in the 4% Sodium Citrate and the bag has been used extensively in Europe with this and other anticoagulants, no pharmacokinetic or bioavailability data are included.

V. Clinical Data:

During a meeting between Haemonetics and members of the CBER staff it was agreed that no clinical studies would be needed.

V. Safety and Efficacy:

Haemonetics has sold over \_\_\_\_\_ units of 4% Sodium Citrate with its name on the product since April, 1997. During that time no serious adverse reports have been received and no recalls of this 4% Sodium Citrate have been necessary. Reprints are included in the NDA to offer further proof of the safety and efficacy of 4% Sodium Citrate.

*Betsy Pendyter 2-28-2000*

*W. Ste 2/29/2000*