FORM 8-A SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

CRYOLIFE, INC.

(Exact name of registrant as specified in its charter)

Florida 59-2417093

(State of incorporation or organization) (I.R.S. Employer Identification No.)

1655 Roberts Boulevard, N.W.

Kennesaw, Georgia 30144 (Address of principal executive offices) (Zip Code)

Securities to be registered pursuant to Section 12(b) of the Act:

Title of each class to be so registered Name of each exchange on which each class is to be registered

Common Stock, par value \$.01 per share New York Stock Exchange Preferred Share Purchase Rights

New York Stock Exchange

Securities to be registered pursuant to Section 12(q) of the Act:

None

(Title of class)

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INFORMATION REQUIRED IN REGISTRATION STATEMENT

ITEM 1. DESCRIPTION OF REGISTRANT'S SECURITIES TO BE REGISTERED.

The description of the Registrant's Common Stock, par value \$.01 per share, set forth under the caption "Description of Capital Stock" in the Prospectus contained in the Registration Statement on Form S-1 of the Registrant filed with the Securities and Exchange Commission (Registration No. 33-56388) is incorporated herein by reference in response to this item, as modified and supplemented by the information below.

The following brief summary description of the Registrant's securities does not purport to be complete and is qualified in its entirety by reference to the Registrant's Amended and Restated Articles of Incorporation, Registrant's Bylaws, as amended, and the Florida Business Corporation Act.

The Registrant is authorized to issue up to 50,000,000 shares of Common Stock, par value \$.01 par share, and 5,000,000 shares of Preferred Stock, par value \$.01 par share, of which 2,000,000 (subject to adjustment by the Board of Directors) shares are designated as Series A Junior Participation Preferred Stock (the "Series A Preferred Stock"), and reserved for issuance in connection with the exercise of certain rights granted pursuant to a Rights Agreement, dated as of November 27, 1995, as amended May 30, 1997, by and between the Registrant and American Stock Transfer & Trust Company, as Rights Agent thereunder. Subject to the rights of the holders of any shares of any series of Preferred Stock (or any similar stock) ranking prior and superior to the Series A Preferred Stock with respect to dividends, the holders of shares of Series A Preferred Stock, in preference to the holders of Common Stock, par value \$.01

par share, of the Registrant, shall be entitled to receive certain amounts as dividends, if declared by the Board of Directors of the Registrant.

Each share of issued and outstanding Common Stock shall entitle the holder thereof to one (1) vote on each matter with respect to which shareholders have the right to vote, to fully participate in all shareholders meetings, and to share ratably in the net assets of the corporation upon liquidation and/or dissolution. Each share of Series A Preferred Stock shall entitle the holder thereof to one (1) vote on all matters submitted to a vote of the shareholders of the Registrant. However, in the event the Registrant shall at any time declare or pay any dividend on the Common Stock payable in shares of Common Stock, or effect a subdivision or combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in shares of Common Stock) into a greater or lesser number of shares of Common Stock, then in each such case the number of votes per share to which holders of shares of Series A Preferred Stock are entitled shall be adjusted by multiplying the number of votes per share immediately prior to such event by a fraction, the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

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Each share of issued and outstanding preferred stock shall have such rights to share in the net assets of the corporation upon liquidation and/or dissolution as are determined and fixed by the Board of Directors. However, upon any liquidation or dissolution, no distribution shall be made (1) to the holders of shares of stock ranking junior to the Series A Preferred Stock unless, prior thereto, the holders of shares of Series A Preferred Stock shall have received \$10.00 per share, plus an amount equal to accrued and unpaid dividends and distributions thereon, whether or not declared, to the date of such payment, provided that the holders of shares of Series A Preferred Stock shall be entitled to receive an aggregate amount per share, subject to certain adjustments, equal to 10 times the aggregate amount to be distributed per share to holders of shares of Common Stock, or (2) to the holders of shares of stock ranking on a parity with the Series A Preferred Stock, except distributions made ratably on the Series A Preferred Stock and all such parity stock in proportion to the total amounts to which the holders of all such shares are entitled upon such liquidation, dissolution or winding up.

No conversion, redemption or sinking fund rights are applicable to the Common Stock or preferred stock, and no holders of the Common Stock have any preemptive right to subscribe for any securities of the Registrant. As of June 20, 1997 there were 9,641,948 (excluding 543,000 shares held in treasury) shares of Common Stock issued and outstanding.

The description of the Registrant's Preferred Share Purchase Rights is incorporated by reference to the Current Report on Form 8-K filed with the Securities and Exchange Commission on December 1, 1995 and dated November 27, 1995.

ITEM 2. EXHIBITS.

The securities described herein are to be registered on the New York Stock Exchange, on which no other securities of the Registrant are registered. Accordingly, the following exhibits required in accordance with Part II of the Instructions as to Exhibits on Form 8-A have been duly filed with the New York Stock Exchange, but will not be filed with or incorporated by reference within the Form 8-A filed with the Securities and Exchange Commission:

- (1) Annual Report on Form 10-K for the year ended December 31, 1996 of the Registrant
- (2) Quarterly Report on Form 10-Q for the three-month period ended March 31, 1997 of the Registrant
- (3) Current Report on Form 8-K/A filed with the Securities and Exchange Commission on May 15, 1997

- (4) 1997 Proxy Statement of the Registrant
- (5) (i) Restated Articles of the Incorporation of the Registrant, as amended (See the following: Exhibit 3.1 to the Registrant's Registration Statement on S-1 (No. 33-56388), Exhibit 3.2 to the Registrant's Annual Report on Form 10-K for the fiscal year ended

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December 31, 1995 and Exhibit 3.3 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 1996)

- (ii) Bylaws of the Registrant, as amended (See Exhibit 3.2 to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1993.)
- (iii) Rights Agreement
- (6) Specimen Stock Certificate for the Registrant's Common Stock, par value of \$.01 per share
- (7) 1996 Annual Report to Stockholders of the Registrant

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SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereto duly authorized.

CRYOLIFE, INC.

Date: July 2, 1997 By:/s/ Steven G. Anderson

Steven G. Anderson, Chairman of the Board, Chief Executive Officer and President

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