
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

**FORM 8-A/A
Amendment No. 2**

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

ENZON PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State of incorporation or organization)

22-2372868

(I.R.S. Employer
Identification No.)

685 Route 202/206, Bridgewater, NJ

(Address of principal executive offices)

08807

(Zip Code)

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

Title of each class
to be so registered

N/A

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

N/A

If this form relates to the registration of a class of securities pursuant to
Section 12(b) of the Exchange Act and is effective upon filing pursuant to
General Instruction A.(c), please check the following box.

If this form relates to the registration of a class of securities pursuant to
Section 12(g) of the Exchange Act and is effective upon filing pursuant to
General Instruction A.(d), please check the following box.

Securities Act registration statement file number to which this form relates: 000-19774

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

Series B Preferred Stock Purchase Rights
(Title of Class)

N/A
(Title of Class)

AMENDMENT NO. 2 TO FORM 8-A

This Amendment No. 2 to Form 8-A amends and supplements the Registration Statement on Form 8-A filed by Enzon Pharmaceuticals, Inc., formerly known as Enzon, Inc., a Delaware corporation (the "Company"), with the Securities and Exchange Commission on May 22, 2002, as amended and supplemented by Amendment No. 1 on Form 8-A/A filed by the Company on February 20, 2003.

Item 1. Description of Registrant's Securities to be Registered

Item 1 of Form 8-A is amended and supplemented by adding the following:

On January 7, 2008, the Company and Continental Stock Transfer & Trust Company (the "Rights Agent") entered into the Second Amendment (the "Amendment") to the Rights Agreement, dated as of May 17, 2002, between the Company and the Rights Agent (the "Rights Agreement"), as amended. The Amendment provides that stockholders who report beneficial ownership of the Company's common stock on Schedule 13G under the Securities Exchange Act of 1934, as amended, may beneficially own less than 20% of the outstanding shares of common stock of the Company without becoming an "Acquiring Person" (as defined in the Rights Agreement) and thereby triggering the rights under the Rights Agreement.

The Amendment is attached hereto as Exhibit 6 and is incorporated herein by reference. The foregoing description of the Amendment does not purport to be complete and is qualified in its entirety by such Exhibit.

Item 2. Exhibits

<u>Exhibit No.</u>	<u>Description</u>
1	Rights Agreement, dated as of May 17, 2002, between Enzon Pharmaceuticals, Inc. and Continental Stock Transfer & Trust Company (the "Rights Agreement").*
2	First Amendment to the Rights Agreement, dated as of February 19, 2003, between Enzon Pharmaceuticals, Inc. and Continental Stock Transfer & Trust Company.**
3	Form of Right Certificate (incorporated by reference to Exhibit B to the Rights Agreement, dated as of May 17, 2002, between Enzon Pharmaceuticals, Inc. and Continental Stock Transfer & Trust Company). Pursuant to the Rights Agreement, printed Right Certificates will not be mailed until the Distribution Date (as defined in the Rights Agreement).*
4	Summary of Rights (filed as Exhibit C to the Rights Agreement, dated as of May 17, 2002, between Enzon Pharmaceuticals, Inc. and Continental Stock Transfer & Trust Company).*

Exhibit No.	Description
5	Form of Certificate of Designation with respect to the Series B Preferred Stock, par value \$.01 per share, of Enzon Pharmaceuticals, Inc. (filed as Exhibit A to the Rights Agreement, dated as of May 17, 2002, between Enzon Pharmaceuticals, Inc. and Continental Stock Transfer & Trust Company).*
6	Second Amendment to the Rights Agreement, dated as of January 7, 2008, between Enzon Pharmaceuticals, Inc. and Continental Stock Transfer & Trust Company.***

* Incorporated by reference to Exhibit 1 to the Company's Registration Statement on Form 8-A, filed May 22, 2002.

** Incorporated by reference to Exhibit 2 to the Company's Amendment No. 1 to the Registration Statement on Form 8-A/A, filed February 20, 2003.

*** Filed herewith.

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.

Dated: January 7, 2008

ENZON PHARMACEUTICALS, INC.

By: /s/ Jeffrey H. Buchalter

Name: Jeffrey H. Buchalter

Title: Chairman, President and Chief Executive Officer

EXHIBIT INDEX

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*** Filed herewith.

SECOND AMENDMENT TO THE RIGHTS AGREEMENT

SECOND AMENDMENT, dated as of January 7, 2008 (the "Amendment"), to the Rights Agreement (the "Rights Agreement"), dated as of May 17, 2002, as amended, between Enzon Pharmaceuticals, Inc. (formerly, Enzon, Inc.), a Delaware corporation (the "Company"), and Continental Stock Transfer & Trust Company, a New York banking corporation, as rights agent (the "Rights Agent"). Capitalized terms used without definition in this Amendment shall have the meanings given to them in the Rights Agreement.

WHEREAS, the Company and the Rights Agent have previously entered into the Rights Agreement; and

WHEREAS, pursuant to Section 27 of the Rights Agreement, the Company and the Rights Agent may from time to time supplement and amend the Rights Agreement in order to make any changes which the Company may deem necessary or desirable.

NOW, THEREFORE, in consideration of the foregoing and other good and valuable consideration, the receipt and sufficiency of which the parties hereby acknowledge, the parties agree as follows:

ARTICLE I AMENDMENT

Section 1.1. Amendment to Definition of "Threshold Percentage". The definition of "Threshold Percentage" in Section 1 of the Rights Agreement is hereby amended and restated in its entirety to read as follows:

"Threshold Percentage" shall mean 15%; provided, however, that, with respect to any Person who shall report beneficial ownership of Common Shares of the Company on Schedule 13G under the Exchange Act, "Threshold Percentage" shall mean 20%.

ARTICLE II MISCELLANEOUS

Section 2.1. Effectiveness. This Amendment shall be effective as of the date first written above, and except as expressly set forth herein, the Rights Agreement shall remain in full force and effect and otherwise shall be unaffected hereby.

Section 2.2. Counterparts. This Amendment may be executed in any number of counterparts and each of such counterparts shall for all purposes be deemed to be an original, and all such counterparts shall together constitute but one and the same instrument.

Section 2.3. Miscellaneous. This Amendment shall be deemed a contract made under the laws of Delaware and for all purposes shall be governed by and construed in accordance with the laws of such state. If any term or other provision of this Amendment is determined to be invalid, illegal or incapable of being enforced by any rule of law or public policy, all other terms and provisions of this Amendment shall nevertheless remain in full force and effect and upon such determination that any term or other provision is invalid, illegal or incapable of being enforced, this Amendment and such term or other provision shall be deemed to have been amended so as to effect the original intent of the parties as closely as possible in an acceptable manner to the Board of Directors of the Company.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed and attested, all as of the day and year first written above.

ENZON PHARMACEUTICALS, INC.

By: /s/ Jeffrey H. Buchalter
Name: Jeffrey H. Buchalter
Title: Chairman, President and Chief Executive Officer

Attest: /s/ Paul Davit
Name: Paul Davit
Title: Corporate Secretary

CONTINENTAL STOCK TRANSFER &
TRUST COMPANY,
As Rights Agent

By: /s/ William F. Seegraber
Name: William F. Seegraber
Title: Vice President

Attest: /s/ Michael Mullings
Name: /s/ Michael Mullings
Title: Vice President