Registration No. 333-___

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8 REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

OLIN CORPORATION

(Exact name of registrant as specified in its charter)

Virginia
(State or other jurisdiction of incorporation or organization)

13-1872319 (I.R.S. Employer Identification No.)

190 Carondelet Plaza, Suite 1530, Clayton, MO (Address of Principal Executive Offices)

63105 (Zip Code)

OLIN CORPORATION AMENDED AND RESTATED 1997 STOCK PLAN FOR

NON-EMPLOYEE DIRECTORS

(Full title of the plan)

G. H. Pain

Vice President, General Counsel and Secretary

Olin Corporation

190 Carondelet Plaza, Suite 1530

Clayton, Missouri 63105

(Name and address of agent for service)

314-480-1400

(Telephone number, including area code, of agent for service)

CALCULATION OF REGISTRATION FEE

	Proposed Maximum			
Title of Each Class of Securities to be Registered Common Stock (par value \$1.00 per share) Participating Cumulative Preferred Stock Purchase Rights	Amount to be registered 250,000(1)	Offering Price Per Share (2) \$21.37 (3)	Aggregate Offering Price (2) \$5,342,500 (3)	Amount of Registration Fee \$629.00 (3)

- (1) This Registration Statement shall also cover any additional shares of Common Stock which become issuable under the Plan by reason of any stock dividend or stock split or as the result of other anti-dilution provisions in the Plan.
- (2) Estimated solely for purposes of calculating the amount of the registration fee, pursuant to Rule 457(c) and (h), based upon the average of the high and low prices reported for the Common Stock on April 26, 2005, on the New York Stock Exchange consolidated reporting system.
- (3) The rights are attached to the Common Stock pursuant to the Rights Agreement dated as of February 27, 1996, between Olin Corporation and Chemical Mellon Shareholder Services, L.L.C. The value attributable to the rights, if any, is reflected in the value of the Common Stock and the registration fee for the rights is included in the fee for the Common Stock.

Part II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

EXPLANATORY NOTE

Olin Corporation (Company) has prepared this Registration Statement (the Registration Statement) in accordance with the requirements of Form S-8 under the Securities Act of 1933, as amended (the Securities Act), to register an additional 250,000 shares of Common Stock, which will be issued in accordance with our Amended and Restated 1997 Stock Plan for Non-Employee Directors (Plan).

INCORPORATION OF CONTENTS OF REGISTRATION

STATEMENT BY REFERENCE

The Company filed a registration statement on Form S-8 (File No. 333-110136) with the Securities and Exchange Commission (SEC) covering the registration of 50,000 shares for issuance under the Plan, which registration statement incorporated by reference a previously filed registration statement on Form S-8 (File No. 333-97759 registering 300,000 shares under the Plan). Pursuant to General Instruction E of Form S-8 and Rule 429, this Registration Statement is being filed to register an additional 250,000 shares pursuant to the Plan. The contents of the prior registration statement (File No. 333-110136) are incorporated herein by reference.

Item 3. INCORPORATION OF DOCUMENTS BY REFERENCE

We incorporate by reference the documents listed below which were filed with the SEC under the Securities Exchange Act of 1934:

- (a) Our Annual Report on Form 10-K for the fiscal year ended December 31, 2004;
- (b) Our Current Reports on Form 8-K filed on January 28, 2005 (report containing items 1.01 and 9.01) and March 31, 2005; and
- (c) The descriptions of our Common Stock and Series A Participating Cumulative Preferred Stock Purchase Rights, contained in Amendment No. 3 to Olin s Registration Statement on Form S-4 filed on August 14, 2002 (Registration No. 333-88990).

We also incorporate by reference each of the following documents that we will file with the SEC after the date of this registration statement until this offering is completed, which documents shall be deemed to be incorporated herein from the date of filing of such documents:

reports filed under Section 13(a) and (c) of the Securities Exchange Act of 1934;

definitive proxy or information statements filed under Section 14 of the Securities Exchange Act of 1934 in connection with any subsequent stockholders meeting; and

any reports filed under Section 15(d) of the Securities Exchange Act of 1934.

Item 8. <u>EXHIBITS</u>

The Exhibits to this Registration Statement are listed in the Exhibit Index to this Registration Statement, which Index is incorporated herein by reference.

SIGNATURES

Registrant. Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Clayton, State of Missouri, on April 28, 2005.

OLIN CORPORATION

By: /s/ G. H. Pain G. H. Pain

Title: Vice President, General Counsel and Secretary

POWER OF ATTORNEY

We the undersigned officers and directors of Olin Corporation, hereby severally constitute and appoint George H. Pain and Dennis R. McGough, and each of them singly, our true and lawful attorneys-in-fact, with full power to them in any and all capacities, to sign any and all amendments to this Registration Statement on Form S-8 (including any post-effective amendments thereto), and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the date indicated.

	Signature	Title	Date
/s/ Randall W. Larrimon	re	Director and Chairman of the Board	April 28, 2005
Randall W. Larrimore			
/s/ Joseph D. Rupp		President, Chief Executive Officer and Director (Principal Executive Officer)	April 28, 2005
Joseph D. Rupp		(Thicipal Executive Officer)	
/s/ Anthony W. Ruggier	ro	Executive Vice President, Chief Financial Officer and Director (Principal Financial Officer)	April 28, 2005
Anthony W. Ruggiero		and Director (1 Interpar I maneral Officer)	

Signature	Title	Date
/s/ John E. Fischer	Vice President, Finance and Controller (Principal Accounting Officer)	April 28, 2005
John E. Fischer	Accounting Officer)	
/s/ Donald W. Griffin	Director	April 28, 2005
Donald W. Griffin		
/s/ James G. Hascall	Director	April 28, 2005
James G. Hascall		
/s/ William W. Higgins	Director	April 28, 2005
William W. Higgins		
/s/ Virginia A. Kamsky	Director	April 28, 2005
Virginia A. Kamsky		
/s/ Richard M. Rompala	Director	April 28, 2005
Richard M. Rompala		
/s/ Philip J. Schulz	Director	April 28, 2005
Philip J. Schulz		

EXHIBIT INDEX

EXHIBIT	DESCRIPTION
5	Opinion of Counsel
23.1	Consent of KPMG LLP
23.2	Consent of Ernst & Young
23.3	Consent of Counsel (contained in Exhibit 5)
24	Power of Attorney (included on signature page)