# UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

# POST-EFFECTIVE AMENDMENT NO. 3 ON FORM S-8 TO FORM S-4

REGISTRATION STATEMENT Under The Securities Act of 1933

# POLYONE CORPORATION

(Exact Name of Registrant as Specified in Its Charter)

OHIO (State or Other Jurisdiction of Incorporation or Organization)

34-1730488 (I.R.S. Employer Identification No.)

33587 Walker Road, Avon Lake, Ohio 44012 (Address of Principal Executive Offices Including Zip Code)

THE GEON COMPANY 1993 INCENTIVE STOCK PLAN
THE GEON COMPANY 1995 INCENTIVE STOCK PLAN
THE GEON COMPANY 1998 INTERIM STOCK AWARD PLAN
THE GEON COMPANY 1999 INCENTIVE STOCK PLAN
POLYONE CORPORATION DEFERRED COMPENSATION PLAN FOR NON-EMPLOYEE DIRECTORS
THE M.A. HANNA COMPANY LONG TERM INCENTIVE PLAN

(Full Title of the Plan)

Wendy C. Shiba
Senior Vice President, Chief Legal Officer and Secretary
PolyOne Corporation
33587 Walker Road
Avon Lake, Ohio 44012
(440) 930-1000
(Name, Address and Telephone Number of Agent For Service)

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#### INTRODUCTORY STATEMENT

PolyOne Corporation (the "Registrant") hereby amends the Registration Statement on Form S-4, as amended (No. 333-37344), filed by The Geon Company, M.A. Hanna Company and Consolidation Corp. on May 18, 2000, by filing this Post-Effective Amendment No. 3 on Form S-8 to Form S-4 ("Post-Effective Amendment No. 3") relating to its common stock, par value \$0.01 per share ("Common Stock"). The Registrant amended the Registration Statement on Form S-4 by Post-Effective Amendment No. 1 (File No. 333-47796) on October 11, 2000 and by Post-Effective Amendment No. 2 (File No. 333-47796) on May 30, 2003.

This Post-Effective Amendment No. 3 is being filed (i) to delete from the Registration Statement the PolyOne Retirement Savings Plan A, the PolyOne Retirement Savings Plan for Collectively Bargained Employees, the PolyOne Retirement Savings Plan for Collectively Bargained Employees A and the DH Compounding Company Savings and Retirement Plan and Trust (the "Retirement Plans") in connection with the filing of a new Registration Statement covering shares under the DH Compounding Company Savings and Retirement Plan and Trust and the PolyOne Retirement Savings Plan (into which the following plans have merged: the PolyOne Retirement Savings Plan A, the PolyOne Retirement Savings Plan for Collectively Bargained Employees and the PolyOne Retirement Savings Plan for Collectively Bargained Employees A); (ii) to delete from registration the participation interests offered pursuant to the Retirement Plans; (iii) to make corresponding changes to the information contained in Part II of this Registration Statement; and (iv) to reallocate 5,440,640 shares of Common Stock remaining unsold among the following plans as specified below:

Plan Name	Shares Registered Before Reallocation	Shares Remaining Unsold	Reallocation of Unsold Shares	Total Number of Shares Registered Under this Registration Statement
The Geon Company 1993 Incentive Stock Plan	1,167,318	1,055,542	0	111,776
The Geon Company 1995 Incentive Stock Plan	536,400	272,390	2,052,708	2,316,718
The Geon Company 1998 Interim Stock Award Plan	333,154	313,570	158,712	178,296
The Geon Company 1999 Incentive Stock Plan	516,400	100,062	1,158,392	1,574,730
Polyone Corporation Deferred Compensation Plan For Non-Employee Directors	400,570	99,925	736,840	1,037,485
M.A. Hanna Company Long Term Incentive Plan, as amended	1,000,000	852,402	1,333,988	1,481,586
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Plan Name  DH Compounding Company Savings and Retirement Plan and Trust	Shares Registered <u>Before Reallocation</u> 156,598	Shares Remaining Unsold 113,500	Reallocation of Unsold Shares	Total Number of Shares Registered Under this Registration Statement 43,098
PolyOne Retirement Savings Plan	4,043,251	979,388	0	3,063,863
PolyOne Retirement Savings Plan A	5,059,620	1,558,720	0	3,500,900
PolyOne Retirement Savings Plan for Collectively Bargained Employees	75,000	21,290	0	53,710
PolyOne Retirement Savings Plan for Collectively Bargained Employees A	75,000	73,851	0	1,149
Total	13,363,311	5,440,640	5,440,640	13,363,311

#### **PART II**

# INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

#### Item 3. Incorporation of Documents by Reference.

The following documents have been filed by PolyOne Corporation, an Ohio corporation (the "Registrant"), with the Securities and Exchange Commission (the "Commission") and are incorporated herein by reference:

- The Registrant's Annual Report on Form 10-K, filed March 1, 2007;
- Annual Report on Form 11-K for the year ended December 31, 2005, filed by the PolyOne Retirement Savings Plan on June 29, 2006;
- Annual Report on Form 11-K for the year ended December 31, 2005, filed by the DH Compounding Company Savings and Retirement Plan and Trust on June 26, 2006;
- The Registrant's Current Report on Form 8-K, filed January 25, 2007; and
- The description of the Registrant's Common Shares contained in the registration statement on Form 8-A filed August 31, 2000, including any subsequently filed amendments and reports updating such description.

All documents filed by the Registrant with the Commission pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934 (the "Exchange Act") subsequent to the date of this registration statement and prior to the filing of a post-effective amendment that indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, will be deemed

to be incorporated by reference in this registration statement and to be part hereof from the date of filing of such documents. Any statement contained in any document incorporated or deemed to be incorporated by reference herein will be deemed to be modified or superseded for purposes of this registration statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded will not be deemed, except as modified or superseded, to constitute a part of this registration statement.

#### Item 4. Description of Securities.

Not applicable.

#### Item 5. Interests of Named Experts and Counsel.

Not applicable.

#### Item 6. Indemnification of Directors and Officers.

PolyOne Corporation is an Ohio corporation. Under Section 1701.13 of the Ohio General Corporation Law ("Ohio Law"), Ohio corporations are permitted to indemnify directors, officers, employees and agents within prescribed limits and must indemnify them under certain circumstances. Ohio Law does not authorize the payment by a corporation of judgments against a director, officer, employee or agent after a finding of negligence or misconduct in a derivative suit absent a court order determining that such person succeeds on the merits. In all other cases, if it is determined that a director, officer, employee or agent acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interest of the corporation, indemnification is discretionary except as otherwise provided by a corporation's articles of incorporation, code of regulations or contract, and except with respect to the advancement of expenses of directors.

With respect to the advancement of expenses, Ohio Law provides that a director (but not an officer, employee or agent) is entitled to mandatory advancement of expenses, including attorney's fees, incurred in defending any action, including derivative actions, brought against the director, provided that the director agrees to cooperate with the corporation concerning the matter and to repay the amount advanced if it is proven by clear and convincing evidence that his or her act or failure to act was done with deliberate intent to cause injury to the corporation or with reckless disregard for the corporation's best interests.

Article Sixth of PolyOne Corporation's articles of incorporation provides for indemnification of directors and officers. The provision provides that a director of PolyOne Corporation will not be personally liable to PolyOne Corporation or its shareholders for monetary damages for breach of fiduciary duty as a director, except to the extent that an exemption from liability or limitation is not permitted under Ohio Law. Article Sixth provides that each director and officer will, to the fullest extent permitted by applicable law, be indemnified except as may be otherwise provided in PolyOne Corporation's code of regulations.

We have entered into indemnification agreements ("Indemnification Agreements") with each of our directors and each of our executive officers, including the named executive officers ("Indemnitees").

In general, the Indemnification Agreements provide that, subject to the procedures, limitations and exceptions set forth therein, (i) we will indemnify the Indemnitee for all expenses, judgments, fines and amounts paid in settlement actually incurred by the Indemnitee in connection with

any threatened, pending or completed action, suit, proceeding or claim, by reason of the fact that the Indemnitee is or was a director and/or officer of Polyone or is or was serving at the request of Polyone at another entity, or by reason of any action alleged to have been taken or omitted in any such capacity, including any appeal of or from any judgment or decision; (ii) we will indemnify the Indemnitee against any amount that the Indemnitee is or becomes obligated to pay relating to or arising out of any claim made against the Indemnitee because of any act, failure to act or neglect or breach of duty, including any actual or alleged error, misstatement or misleading statement, that the Indemnitee commits, suffers, permits or acquiesces in while acting in his capacity as a director and/or officer of Polyone or at the request of Polyone at another entity; (iii) we will advance expenses as they are actually and reasonably incurred in connection with defending a claim in advance of the final disposition of a claim; and (iv) we will maintain an insurance policy or policies providing directors' liability insurance that covers the Indemnitee.

#### Item 7. Exemption from Registration Claimed.

Not applicable.

#### Item 8. Exhibits.

Exhibit Number	Description		
4.1	Articles of Incorporation of the Registrant, previously filed as Exhibit 3.1 to the Registrant's Form 10-K for the year ended December 31, 2000, SEC File No. 1-16091		
4.2	Amendment to the second article of the Articles of Incorporation of the Registrant, previously filed as Exhibit 3.1a to the Registrant's Form 10-K for the year ended December 31, 2003, SEC File No. 1-16091		
4.3	Regulations of the Registrant, previously filed as Exhibit 3.2 to the Registrant's Form 10-K for the year ended December 31, 2000, SEC File No. 1-16091		
23.1	Consent of Independent Registered Public Accounting Firm - Ernst & Young LLP		
23.2	Consent of Independent Registered Public Accounting Firm - KPMG LLP		
23.3	Consent of Independent Registered Public Accounting Firm - Ernst & Young LLP		
23.4	Consent of Independent Registered Public Accounting Firm - Coulter & Justus, P.C.		
24	Power of Attorney		

#### Item 9. Undertakings.

- (a) The undersigned registrant hereby undertakes:
  - (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
    - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
- (ii) To reflect in the prospectus any facts or events arising after the effective date of this registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in the volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range

may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(iii) To include any material information with respect to the plan of distribution not previously disclosed in this registration statement or any material change to such information in this registration statement;

*provided*, *however*, that paragraphs (1)(i) and (1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in this registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act of (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

#### **SIGNATURES**

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 Avon Lake, State of Ohio on March 2, 2007.

# POLYONE CORPORATION

By: /s/ W. David Wilson

W. David Wilson

Senior Vice President and Chief Financial Officer

Pursuant to the requirements of the Securities Act, this registration statement has been signed by the following persons in the capacities and on the date indicated.

Date: March 2, 2007	/s/ Stephen D. Newlin
	Stephen D. Newlin
	Chairman of the Board, President, Chief Executive Officer and
	Director (Principal Executive Officer)
Date: March 2, 2007	/s/ W. David Wilson
	W. David Wilson
	Senior Vice President and Chief Financial Officer
	(Principal Financial Officer)
Data: Manah 2 2007	*
Date: March 2, 2007	
	Michael J. Meier
	Corporate Controller and Assistant Treasurer
	(Principal Accounting Officer)
Date: March 2, 2007	*
	J. Douglas Campbell
	Director
Date: March 2, 2007	*
, , , ,	Carol A. Cartwright
	Director
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Date:	March 2, 2007	*
		Gale Duff-Bloom
		Director
Date:	March 2, 2007	*
		Wayne R. Embry
		Director
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Date:	March 2, 2007	*
		Richard H. Fearon
		Director
Datas	March 2, 2007	*
Date.	Watch 2, 2007	Robert A. Garda
		Director
		Director
Date:	March 2, 2007	*
		Gordon D. Harnett
		Director
Date:	March 2, 2007	/s/ Edward J. Mooney
		Edward J. Mooney
		Director
Datas	March 2, 2007	*
Date:	March 2, 2007	
		Farah M. Walters Director
		Director

<sup>\*</sup> This registration statement has been signed on behalf of the above officers and directors by W. David Wilson, as attorney-in-fact pursuant to a power of attorney filed as Exhibit 24 to this registration statement.

DATED: March 2, 2007 By: /s/ W. David Wilson

W. David Wilson Attorney-in-Fact

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*The Plans.* Pursuant to the requirements of the Securities Act, the trustees (or other persons who administer the employee benefit plans) have duly caused this registration statement to be signed on their behalf by the undersigned, thereunto duly authorized, in the city of Avon Lake, State of Ohio (in the case of Mr.Wilson), and in the city of Clinton, State of Tennessee (in the case of Ms. Myers), on March 2, 2007.

POLYONE RETIREMENT SAVINGS PLAN
For itself and as successor to: the PolyOne
Retirement Savings Plan A, the PolyOne Retirement
Savings Plan for Collectively Bargained Employees
and the PolyOne Retirement Savings Plan for
Collectively Bargained Employees A.
By: PolyOne Retirement Plan Committee

By: /s/ W. David Wilson

W. David Wilson Plan Administrator

# DH COMPOUNDING COMPANY SAVINGS AND RETIREMENT PLAN AND TRUST

By: /s/ Theressa Myers

Theressa Myers Plan Administrator

Exhibit Number

Description

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23.3	Consent of Independent Registered Public Accounting Firm - Ernst & Young LLP
23.4	Consent of Independent Registered Public Accounting Firm - Coulter & Justus, P.C.
24	Power of Attorney

We consent to the incorporation by reference in the Post-Effective Amendment No. 3 on Form S-8 to Form S-4 (Form S-8 No. 333-47796) of our report dated February 26, 2007 with respect to the consolidated financial statements and schedule of PolyOne Corporation included in its Annual Report (Form 10-K) for the year ended December 31, 2006, and our report dated February 26, 2007 on PolyOne Corporation management's assessment of the effectiveness of internal control over financial reporting of PolyOne Corporation included in its Annual Report (Form 10-K) for the year ended December 31, 2006, and our report dated May 24, 2006, with respect to the financial statements and schedules of the PolyOne Retirement Savings Plan included in the Plan's Annual Report (Form 11-K) for the year ended December 31, 2005, filed with the Securities and Exchange Commission.

/s/ ERNST & YOUNG LLP

Cleveland, Ohio February 26, 2007

We consent to the incorporation by reference in the registration statement (No. 333-47796) on Form S-8 of PolyOne Corporation of our report dated February 28, 2007, with respect to the consolidated balance sheets of Oxy Vinyls, LP as of December 31, 2006 and 2005, and the related consolidated statements of operations, changes in partners' capital, and cash flows for each of the years in the three-year period ended December 31, 2006, which report appears in the December 31, 2006, annual report on Form 10-K of PolyOne Corporation. Our report refers to a change in method of accounting for share-based payments effective July 1, 2005 and a change in method of accounting for defined benefit pension and other postretirement plans effective December 31, 2006.

/s/ KPMG LLP

Dallas, Texas February 28, 2007

We consent to the incorporation by reference in the Post-Effective Amendment No. 3 on Form S-8 to Form S-4 (Form S-8 No. 333-47796) of our report dated February 19, 2007 with respect to the financial statements of the SunBelt Chlor Alkali Partnership included in the Annual Report (Form 10-K) of PolyOne Corporation for the year ended December 31, 2006, filed with the Securities and Exchange Commission.

/s/ ERNST & YOUNG LLP

Cleveland, Ohio February 26, 2007

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 (Registration No. 333-47796) pertaining to Post-Effective Amendment No. 3 to Form S-4 of our report dated June 9, 2006, relating to the financial statements and supplemental schedule of the DH Compounding Company Savings and Retirement Plan and Trust (the "Plan") included in the Annual Report (Form 11-K) of the Plan for the year ended December 31, 2005.

/s/ Coulter & Justus, P.C.

March 1, 2007 Knoxville, Tennessee

# POLYONE CORPORATION REGISTRATION STATEMENT ON FORM S-8 POWER OF ATTORNEY

Each undersigned officer and/or director of PolyOne Corporation, an Ohio corporation (the "Registrant"), does hereby make, constitute and appoint each of Wendy C. Shiba, W. David Wilson and Michael J. Meier with full power of substitution and resubstitution, as attorney of the undersigned, to execute and file:

- (i) a Registration Statement on Form S-8 (the "Retirement Plan Form S-8 Registration Statement") with respect to the registration under the Securities Act of 1933, as amended (the "Securities Act"), of Common Shares of the Registrant issuable in connection with the PolyOne Retirement Savings Plan and the DH Compounding Savings and Retirement Plan and, if required, the related participation interests under the Retirement Plans;
- (ii) a Registration Statement on Form S-8 (the "Equity Plan Form S-8 Registration Statement") with respect to the registration under the Securities Act, of Common Shares of the Registrant issuable in connection with The Geon Company 1993 Incentive Stock Plan, The Geon Company 1995 Incentive Stock Plan, The Geon Company 1998 Interim Stock Award Plan, The Geon Company 1999 Incentive Stock Plan, The Geon Company Non-Employee Director Deferred Compensation Plan and the M.A. Hanna Company Long Term Incentive Plan, as amended (the "Equity Plans");
- (iii) a Post-Effective Amendment No. 3 on Form S-8 to Form S-4, with respect to the registration under the Securities Act of Common Shares of the Registrant issuable in connection with certain retirement plans of the Registrant and the Equity Plans (together with the Retirement Plan Form S-8 Registration Statement and the Equity Plan Form S-8 Registration Statement, the "Form S-8 Registration Statements");
  - (iv) any and all amendments, including post-effective amendments, and exhibits to the Form S-8 Registration Statements; and
- (v) any and all applications or other documents to be filed with the Securities and Exchange Commission or any state securities commission or other regulatory authority with respect to the securities covered by the Form S-8 Registration Statements, with full power and authority to do and perform any and all acts and things whatsoever necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the said director and/or officer, hereby ratifying and approving the acts of said attorneys and any of them and any such substitute.

/s/ William F. Patient

Director

W. David Wilson		
Vice President and Chief Financial Officer		
/s/ J. Douglas Campbell		
J. Douglas Campbell		
Director		
/s/ Gale Duff-Bloom		
Gale Duff-Bloom		
Director		
/s/ Richard H. Fearon		
Richard H. Fearon		
Director		
/s/ Gordon D. Harnett		
Gordon D. Harnett		
Director		

/s/ W. David Wilson