

OMB APPROVAL
OMB Number: 3235-0058 Expires: April 30, 2009 Estimated average burden hours per response ... 2.50
SEC FILE NUMBER 1-16091
CUSIP NUMBER

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

FORM 12b-25

NOTIFICATION OF LATE FILING

(Check one): Form 10-K Form 20-F Form 11-K Form 10-Q Form 10-D Form N-SAR Form N-CSR

For Period Ended: September 30, 2006

- Transition Report on Form 10-K
- Transition Report on Form 20-F
- Transition Report on Form 11-K
- Transition Report on Form 10-Q
- Transition Report on Form N-SAR

For the Transition Period Ended: _____

Read Instruction (on back page) Before Preparing Form. Please Print or Type.
Nothing in this form shall be construed to imply that the Commission has verified any information contained herein.

If the notification relates to a portion of the filing checked above, identify the Item(s) to which the notification relates:

PART I — REGISTRANT INFORMATION

PolyOne Corporation

Full Name of Registrant

Former Name if Applicable

PolyOne Center, 33587 Walker Road

Address of Principal Executive Office (Street and Number)

Avon Lake, Ohio 44012

City, State and Zip Code

PART II — RULES 12b-25(b) AND (c)

If the subject report could not be filed without unreasonable effort or expense and the registrant seeks relief pursuant to Rule 12b-25(b), the following should be completed. (Check box if appropriate)

- (a) The reason described in reasonable detail in Part III of this form could not be eliminated without unreasonable effort or expense
- (b) The subject annual report, semi-annual report, transition report on Form 10-K, Form 20-F, Form 11-K, Form N-SAR or Form N-CSR, or portion thereof, will be filed on or before the fifteenth calendar day following the prescribed due date; or the subject quarterly report or transition report on Form 10-Q or subject distribution report on Form 10-D, or portion thereof, will be filed on or before the fifth calendar day following the prescribed due date; and
- (c) The accountant's statement or other exhibit required by Rule 12b-25(c) has been attached if applicable.

PART III — NARRATIVE

State below in reasonable detail why Forms 10-K, 20-F, 11-K, 10-Q, 10-D, N-SAR, N-CSR, or the transition report or portion thereof, could not be filed within the prescribed time period.

PolyOne Corporation (the "Company") has experienced unexpected delays in the filing of its Quarterly Report on Form 10-Q for the quarter ended September 30, 2006 within the prescribed time period due to delays experienced in completing the Company's financial statements as of and for the period ended September 30, 2006. As previously reported, in response to a comment raised by the staff of the SEC concerning the Company's segment disclosure and to ensure that its financial reporting remains in full compliance with generally accepted accounting principles, the Audit Committee of the Board of Directors of the Company concluded that the Company's financial statements, including the segment information included therein, (i) as of and for each of the fiscal years ended December

31, 2005, 2004 and 2003, (ii) as of and for each of the three fiscal months ended March 31, 2006 and 2005, and (iii) as of and for each of the three and six fiscal months ended June 30, 2006 and 2005 (collectively, the "Historical Financial Statements") will be amended and restated. The Company is currently in the process of amending and restating the Historical Financial Statements, and cannot complete its financial statements as of and for the period ended September 30, 2006 until the Historical Financial Statements have been amended and restated. The Company estimates that it will be able to amend and restate the Historical Financial Statements by the end of November 2006. Accordingly, the Company expects to file its Quarterly Report on Form 10-Q for the quarter ended September 30, 2006 as soon as practicable after the Historical Financial Statements are amended and restated.

SEC 1344 (03-05)

Persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.

(Attach extra Sheets if Needed)
PART IV — OTHER INFORMATION

(1) Name and telephone number of person to contact in regard to this notification

W. David Wilson
(Name)

440
(Area Code)

930-3204
(Telephone Number)

(2) Have all other periodic reports required under Section 13 or 15(d) of the Securities Exchange Act of 1934 or Section 30 of the Investment Company Act of 1940 during the preceding 12 months or for such shorter period that the registrant was required to file such report(s) been filed? If answer is no, identify report(s).

Yes No

(3) Is it anticipated that any significant change in results of operations from the corresponding period for the last fiscal year will be reflected by the earnings statements to be included in the subject report or portion thereof?

Yes No

If so, attach an explanation of the anticipated change, both narratively and quantitatively, and, if appropriate, state the reasons why a reasonable estimate of the results cannot be made.

PolyOne Corporation

(Name of Registrant as Specified in Charter)

has caused this notification to be signed on its behalf by the undersigned hereunto duly authorized.

POLYONE CORPORATION

Date November 9, 2006

By W. David Wilson

Name: W. David Wilson

Title: Senior Vice President and
Chief Financial Officer