

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

## SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934

(AMENDMENT NO. \_\_\_\_\_)\*

-----  
Polyone Corp  
-----

(Name of Issuer)

-----  
Common Stock  
-----

(Title of Class of Securities)

-----  
73179P106  
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(CUSIP Number)

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

Cusip No. 73179P106  
- - - - -

13G

1. NAME OF REPORTING PERSON  
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

State of Wisconsin Investment Board  
39-6006423

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP \*

Not Applicable

(a) \_\_\_\_\_  
(b) \_\_\_\_\_

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION  
Madison, Wisconsin

NUMBERS OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH

5. SOLE VOTING POWER  
6,100,700

6. SHARED VOTING POWER  
Not Applicable

7. SOLE DISPOSITIVE POWER  
6,100,700

8. SHARED DISPOSITIVE POWER  
Not Applicable

9. AGGREGATE AMOUNT BENEFICALLY OWNED BY EACH REPORTING PERSON  
6,100,700

10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES \*  
Not Applicable

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9  
6.55%

12. TYPE OF REPORTING PERSON \*  
EP (Public Pension Fund)

\* SEE INSTRUCTIONS BEFORE FILLING OUT!

ITEM 1. ISSUER

- (a) Polyone Corp
- (b) 33587 Walker Road  
Avon Lake, OH 44012

ITEM 2. PERSON FILING

- (a) State of Wisconsin Investment Board
- (b) P.O. Box 7842  
Madison, WI 53707
- (c) Wisconsin State Agency
- (d) See cover page
- (e) See cover page

ITEM 3. THIS STATEMENT IS FILED PURSUANT TO 13d-1(b) or 13d-2(b) AND THE STATE OF WISCONSIN INVESTMENT BOARD IS A GOVERNMENT AGENCY WHICH MANAGES PUBLIC PENSION FUNDS SUBJECT TO PROVISIONS COMPARABLE TO ERISA.

ITEM 4. OWNERSHIP

- (a) See Row 9 on Page 2
- (b) See Row 11 on Page 2
- (c) The State of Wisconsin Investment Board retains sole voting and dispositive power for all shares.

ITEM 5. IF THIS STATEMENT IS BEING FILED TO REPORT THE FACT THAT AS OF THE DATE HEREOF THE REPORTING PERSON HAS CEASED TO BE THE BENEFICIAL OWNER OF MORE THAN FIVE PERCENT OF THE CLASS OF SECURITIES, CHECK THE FOLLOWING \_\_\_\_\_.

ITEM 6. NOT APPLICABLE

ITEM 7. NOT APPLICABLE

ITEM 8. NOT APPLICABLE

ITEM 9. NOT APPLICABLE

ITEM 10. CERTIFICATION

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired in the ordinary course of business and were not acquired for the purpose of and do not have the effect of changing or influencing the control of the issuer of such securities and were not acquired in connection with or as a participant in any transaction having such purpose or effect.

SIGNATURE

After reasonable inquiry to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

February 2, 2008

- - - - -

Date

/s/ David Villa

- - - - -

Signature

David Villa, Chief Investment Officer - Investment Groups

- - - - -

Name/Title