

Kahler Michael E
 Form 4
 December 22, 2010

FORM 4

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

OMB APPROVAL

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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *
 Kahler Michael E

(Last) (First) (Middle)
 POLYONE CENTER, 33587
 WALKER ROAD
 (Street)

AVON LAKE, OH 44012

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol
 POLYONE CORP [POL]

3. Date of Earliest Transaction (Month/Day/Year)
 12/21/2010

4. If Amendment, Date Original Filed (Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

___ Director ___ 10% Owner
 Officer (give title below) ___ Other (specify below)
 SVP, Chief Commercial Officer

6. Individual or Joint/Group Filing (Check Applicable Line)
 Form filed by One Reporting Person
 ___ Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Ownership (Instr. 4)
			Code	V	Amount or Price		
Common Stock	12/21/2010		M		30,000 A \$ 6.585	103,160	D
Common Stock	12/21/2010		D		19,500 D \$ 13.455	83,660	D
Common Stock	12/21/2010		I		18,738 D \$ 13.44	12,641	I Savings Plan Trust (1)

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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SEC 1474 (9-02)

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Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	Amount or Number of Shares	
				Code	V (A) (D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares
Stock Appreciation Right	\$ 6.585	12/21/2010		M	30,000	(2) 03/07/2014	Common Stock	30,000	

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Kahler Michael E POLYONE CENTER 33587 WALKER ROAD AVON LAKE, OH 44012			SVP, Chief Commercial Officer	

Signatures

By: Kenneth M. Smith, Power of Attorney For: Michael E. Kahler 12/22/2010

__Signature of Reporting Person

Date

Explanation of Responses:

* If the form is filed by more than one reporting person, see Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

(1) The information in this report is based on a PolyOne Retirement Savings Plan statement as of December 21, 2010. PolyOne common shares are held in a unitized fund that consists of stock and cash. The number of shares and the amount of cash may fluctuate daily depending on plan level activity in the fund. Even though no transaction has occurred, this fluctuation may result in an increase or decrease in the number of shares held since the last report filed by the reporting person.

(2) SARs are exercisable upon vesting. Vesting occurs when the market price of the PolyOne common stock reaches pre-determined levels for three consecutive days as follows: 1/3 vests at a market price of \$7.24 per share; an additional 1/3 vests at a market price of \$7.90 per share; and the remaining 1/3 vests at a market price of \$8.56 per share; provided, however, that no vesting will occur sooner than one year from the grant date of March 8, 2007.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

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