

BASTIAENS F GUILLAUME  
 Form 4  
 August 10, 2009

**FORM 4**

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

OMB APPROVAL

OMB Number: 3235-0287  
 Expires: January 31, 2005  
 Estimated average burden hours per response... 0.5

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

**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 \*  
**BASTIAENS F GUILLAUME**

(Last) (First) (Middle)

C/O THE MOSAIC  
 COMPANY, 3033 CAMPUS  
 DRIVE, SUITE E490

(Street)

PLYMOUTH, MN 55441

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol  
**MOSAIC CO [MOS]**

3. Date of Earliest Transaction  
 (Month/Day/Year)  
**08/07/2009**

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)

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)
				(A) or (D)	Price		
Common Stock	08/07/2009		S <sup>(3)</sup>	1,600	D \$ 54	14,529	D
Common Stock	08/07/2009		S <sup>(3)</sup>	82	D \$ 54.02	14,447	D

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)	8. Price of Derivative Security (Instr. 5)
Restricted Stock Units	\$ 0 <sup>(1)</sup>					08/02/2010 <sup>(2)</sup>	Common Stock	1,624
Restricted Stock Units	\$ 0 <sup>(1)</sup>					10/09/2011 <sup>(2)</sup>	Common Stock	2,327

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
BASTIAENS F GUILLAUME C/O THE MOSAIC COMPANY 3033 CAMPUS DRIVE, SUITE E490 PLYMOUTH, MN 55441		X		

## Signatures

/s/ Richard L. Mack, Attorney-in-Fact for Guillaume F. Bastaens  
Date: 08/10/2009

<sup>(1)</sup>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) One for one

(2) Not applicable

(3) Shares sold to cover tax liability incurred as a result of most recent vesting of Restricted Stock Units.

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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