FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| OMB APPROVAL             |           |  |  |  |  |  |  |  |
|--------------------------|-----------|--|--|--|--|--|--|--|
| OMB Number:              | 3235-0287 |  |  |  |  |  |  |  |
| 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).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| 1. Name and Address of Reporting Person*  MUSCARI JOSEPH C |  |  |   |   | 2. Issuer Name and Ticker or Trading Symbol MINERALS TECHNOLOGIES INC [ MTX                                  |       |     |   |          |                |  | (Che  | Relationship of Reporting Person(s) to Issuer (Check all applicable)     X Director 10% Owner |  |  |   |  |
|--|--|--|---|---|--|-------|-----|---|----------|----------------|--|---|---|--|--|---|--|
| (Last) (First) (Middle) MINERALS TECHNOLOGIES INC.         |  |  |   | 3. Date of Earliest Transaction (Month/Day/Year) 09/15/2005 |  |       |     |   |          |                | Officer<br>below)  | (give title   |   | her (sp<br>low)  | ecify  |   |  |
| (Street) NEW YORK NY 10174  (City) (State) (Zip)           |  |  |   |   | 4. If Amendment, Date of Original Filed (Month/Day/Year)  ative Securities Acquired, Disposed of, or Benefic |       |     |   |          |                | Line   | X Form filed by One Reporting Person Form filed by More than One Reporting Person |   |  |  |   |  |
| 1. Title of Security (Instr. 3)  2. Transac Date (Month/Da |  |  |   | ansaction   | 2A. Deemed<br>Execution Date,  |       |     | 3. 4. Securities Acquired (.<br>Transaction Disposed Of (D) (Instr. 3 |          |                | d (A) or   | 5. Amour<br>Securitie<br>Beneficia<br>Owned F                                     | s<br>Ily<br>ollowing  | 6. Ownersh<br>Form: Direc<br>(D) or Indire<br>(I) (Instr. 4)   | t Ir<br>ct B   | 7. Nature of<br>Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |  |
|  |  |  |   |   |  |       |     | Code  | <i>,</i> | Amount         | Amount (A) or (D)  |   | Transacti<br>(Instr. 3 a  | on(s)  |  |   | (111541.4)   |
|  | Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) |  |   |   |  |       |     |   |          |                |  |   |   |  |  |   |  |
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)        | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security  | 3. Transaction<br>Date<br>(Month/Day/Year) | 3A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) | Code  |  |       |     | 6. Date Exercisable and<br>Expiration Date<br>(Month/Day/Year)        |          |                | 7. Title and Amoun<br>of Securities<br>Underlying<br>Derivative Security<br>(Instr. 3 and 4) |   | 8. Price of<br>Derivative<br>Security<br>(Instr. 5)   | 9. Number<br>derivative<br>Securities<br>Beneficiall<br>Owned<br>Following<br>Reported<br>Transactio<br>(Instr. 4) | Owners<br>Form:<br>Direct (<br>or Indir<br>(I) (Inst | :<br>t (D)<br>lirect  | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
|  |  |  |   | Code  | v  | (A)   | (D) | Date<br>Exercisable   |          | piration<br>te | Title  | Amount<br>or<br>Number<br>of<br>Shares  |   |  |  |   |  |
| PHANTOM<br>STOCK<br>UNITS                                  | \$0 <sup>(1)</sup>   | 09/15/2005                                 | 09/15/2005  | A   |  | 0.903 |     | (2)   |          | (2)            | COMMON<br>STOCK  | 0.903   | \$60.03   | 1,085.16   | 53   | )   |  |

## **Explanation of Responses:**

- 1. EACH PHANTOM STOCK UNIT, WHEN REDEEMED, WILL HAVE THE VALUE OF ONE SHARE OF THE COMPANY'S COMMON STOCK ON THE FIRST BUSINESS DAY OF THE MONTH IN WHICH PAYMENT IS MADE.
- 2. THE PHANTOM STOCK UNITS REPRESENT DIVIDENDS ACCRUED UNDER THE MINERALS TECHNOLOGIES INC. NON-FUNDED DEFERRED COMPENSATION AND UNIT AWARD PLAN FOR NON-EMPLOYEE DIRECTOR'S AND ARE TO BE SETTLED IN CASH UPON THE REPORTING PERSON'S RETIREMENT.

## Remarks:

VICTORIA LUKAUSKAS FOR JOSEPH C. MUSCARI

09/16/2005

\*\* Signature of Reporting Person

Date

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

- \* 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).

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

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