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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of Earliest Event Reported):

January 13, 2012

Cabot Corporation

(Exact name of registrant as specified in its charter)

1-5667

(Commission

File Number)

Delaware

(State or other jurisdiction of incorporation)

Two Seaport Lane, Suite 1300, Boston, Massachusetts

(Address of principal executive offices)

Registrant's telephone number, including area code:

Not Applicable

Former name or former address, if changed since last report

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

[] Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

[] Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

[] Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

[] Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

04-2271897

(I.R.S. Employer Identification No.)

02210-2019

(Zip Code)

617-345-0100

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Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

At its meeting on January 13, 2012, the Board of Directors of Cabot Corporation ("Cabot"), approved certain amendments to the Cabot Corporation Senior Management Severance Protection Plan dated January 9, 1998 and as amended by amendments dated January 12, 2007 and December 31, 2008 (the "Severance Plan"; capitalized terms not otherwise defined in this Item have the meanings set forth in the Severance Plan). The amendments:

1. eliminate the provision requiring the Company to make an additional payment to any participant equal to any excise tax payable by the participant on the severance benefit provided under the Plan (the Section 280G tax gross up provision);

2. add a best net benefit provision giving the Company the right to reduce the Severance Benefit payable to a Participant to the extent the benefit, together with any other benefit provided upon a change in control, would be subject to the excise tax imposed by Section 4999 of the Internal Revenue Code of 1986, as amended, if and to the extent a reduction in the Severance Benefit would result in the Participant retaining a larger amount, on an after-tax basis than if the Participant received the entire amount of the Severance Benefit;

3. change the benefits payable such that Participants will be entitled to receive an amount in cash equal to (i) if the Participant is the Chief Executive Officer of the Company, three (3) times the sum of (A) the Participant's Base Salary and (B) the Participant's Bonus Amount; (ii) if the Participant is a member of the management Executive Committee (other than the Chief Executive Officer) or is otherwise designated by the Compensation Committee as being entitled to receive the same benefit as a member of the management Executive Committee, two (2) times the sum of (A) the Participant's Base Salary and (B) the Participant's Bonus Amount, and (iii) if the Participant is not covered by subclause (i) or (ii) above, one (1) times the sum of (A) the Participant's Base Salary and (B) the Participant's Bonus Amount; and

4. change the continuation of benefits provisions such that (i) if the Participant is the Chief Executive Officer, the Continuation Period will be three years, (ii) if the Participant is a member of the management Executive Committee (other than the Chief Executive Officer) or is otherwise designated by the Compensation Committee as being entitled to receive the same benefit as a member of the management Executive Committee, the Continuation Period will be two years, and (iii) if the Participant is not covered by subclause (i) or (ii) above, the Continuation Period will be one year.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

January 19, 2012

Cabot Corporation

By: Robby D. Sisco

Name: Robby D. Sisco Title: Vice President - Human Resources