UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8 **REGISTRATION STATEMENT UNDER**

THE SECURITIES ACT OF 1933

CABOT CORPORATION

(Exact Name of Registrant as Specified in Its Charter)

Delaware (State or Other Jurisdiction of Incorporation or Organization)

Two Seaport Lane Suite 1300 Boston, MA

(Address of Principal Executive Offices)

04-2271897 (I.R.S. Employer **Identification No.)**

> 02210 (Zip Code)

Cabot Corporation 2009 Long-Term Incentive Plan (Full Title of the Plan)

> Brian A. Berube, Esq. Vice President and General Counsel **Two Seaport Lane Suite 1300** Boston, MA 02210 (Name and Address of Agent For Service)

> > 617-345-0100

(Telephone Number, Including Area Code, of Agent For Service)

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b2 of the Exchange Act.

Large accelerated filer X

Non-accelerated filer □ (Do not check if a smaller reporting company) Smaller reporting company

Accelerated filer

CALCULATION OF REGISTRATION FEE

		Proposed Maximum	Proposed Maximum	
Title of Securities to be Registered	Amount to be Registered(1)	Offering Price Per Share	Aggregate Offering Price	Amount of Registration Fee
Common Stock, \$1.00 par value per share	6,400,000 shares	\$14.73(2)	\$94,272,000(2)	\$5,261

(1)In accordance with Rule 416 under the Securities Act of 1933, as amended, this registration statement shall be deemed to cover any additional securities that may from time to time be offered or issued to prevent dilution resulting from stock splits, stock dividends or similar transactions. (2)

Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(c) and 457(h) of the Securities Act of 1933, as amended, and based upon the average of the high and low prices of the Registrant's Common Stock as reported on the New York Stock Exchange on May 1, 2009.

PART I INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Item 1. Plan Information.

The information required by Item 1 will be included in documents sent or given to participants in the plan covered by this registration statement pursuant to Rule 428(b)(1) of the Securities Act of 1933, as amended (the "Securities Act").

Item 2. Registrant Information and Employee Plan Annual Information.

The written statement required by Item 2 will be included in documents sent or given to participants in the plan covered by this registration statement pursuant to Rule 428(b)(1) of the Securities Act.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The registrant is subject to the informational and reporting requirements of Sections 13(a), 14, and 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and in accordance therewith files reports, proxy statements and other information with the Securities and Exchange Commission (the "Commission"). The following documents, which are on file with the Commission, are incorporated in this registration statement by reference:

(a) The registrant's latest annual report filed pursuant to Section 13(a) or 15(d) of the Exchange Act or the latest prospectus filed pursuant to Rule 424(b) under the Securities Act that contains audited financial statements for the registrant's latest fiscal year for which such statements have been filed.

(b) All other reports filed pursuant to Section 13(a) or 15(d) of the Exchange Act since the end of the fiscal year covered by the document referred to in (a) above.

(c) The description of the registrant's common stock contained in the registrant's registration statement on Form 10 filed under the Exchange Act, including any amendment or report filed for the purpose of updating such description.

All documents subsequently filed by the registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a posteffective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be part hereof from the date of the filing of such documents. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for the purposes of this registration statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

- 1 -

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Brian A. Berube, the registrant's Vice President and General Counsel, has opined as to the legality of securities being offered by this registration statement. At the time of rendering his opinion, Mr. Berube owned 94,353 shares of the registrant's common stock. It is anticipated that additional shares will be issued to Mr. Berube pursuant to the 2009 Long-Term Incentive Plan and under other employee benefit plans of the registrant.

Item 6. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law, as amended, provides that a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal or investigative (other than an action by or in the right of the corporation) by reason of the fact that such person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe such person's conduct was unlawful. Section 145 further provides that a corporation similarly may indemnify any such person serving in any such capacity who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor, against expenses actually and reasonably incurred in connection with the defense or settlement of such action or suit if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interest of the corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such ot

Section 102(b)(7) of the Delaware General Corporation Law, as amended, permits a corporation to include in its certificate of incorporation a provision eliminating or limiting the personal liability of a director to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, provided, however, that such provision shall not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the Delaware General Corporation Law (relating to unlawful payment of dividends and unlawful stock purchase and redemption) or (iv) for any transaction from which the director derived an improper personal benefit.

Article Eighth, Section (j) of the registrant's Restated Certificate of Incorporation and Section 14 of the registrant's By-laws, as amended, provide that the registrant shall indemnify any person who was a party, is a party or is threatened to be made a party to any threatened, pending or completed action, suit, or proceeding by reason of the fact that such person is or was a director, officer, employee or

- 2 -

agent of the registrant or is or was serving at the request of the registrant as a director, officer, employee or agent of another company or enterprise, including service as a fiduciary of an employee benefit plan, against expenses (including attorneys' fees), judgments, fines, penalties and amounts paid in settlement incurred in connection with such action, suit or proceeding to the extent permitted from time to time under the Delaware General Corporation Law. Such indemnification shall be made as authorized in a specific case upon a determination (i) by the Board of Directors by majority vote of a quorum of disinterested directors, (ii) if a quorum of disinterested directors is not available or a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, or (iii) by the stockholders of the registrant. The rights of indemnification are not exclusive of any other rights to which those seeking indemnification may be entitled and shall continue as to a person who ceases to be a director, officer, employee or agent. In addition, under Article Eighth, Section (i) of the registrant's Restated Certificate of Incorporation, no director or officer of the registrant shall be liable to the registrant or its stockholders for monetary damages for any breach of fiduciary duty, except to the extent that Delaware General Corporation Law prohibits the elimination or limitation of liability of directors or officers for breach of fiduciary duty.

All of the registrant's directors and officers are covered by insurance policies maintained by the registrant against specified liabilities for actions taken in their capacities as such, including liabilities under the Securities Act.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

The Exhibit Index immediately preceding the exhibits is incorporated herein by reference.

Item 9. Undertakings.

1. Item 512(a) of Regulation S-K. The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (i) and (ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

- 3 -

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

2. <u>Item 512(b) of Regulation S-K</u>. The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

3. <u>Item 512(h) of Regulation S-K</u>. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

- 4 -

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Boston, Massachusetts on this 5th day of May, 2009.

CABOT CORPORATION

By: /s/ Patrick M. Prevost

Patrick M. Prevost President and Chief Executive Officer

POWER OF ATTORNEY AND SIGNATURES

We, the undersigned officers and directors of Cabot Corporation, hereby severally constitute and appoint Brian A. Berube and Jane A. Bell, and each of them singly, our true and lawful attorneys with full power to them, and each of them singly, to sign for us and in our names in the capacities indicated below, the registration statement on Form S-8 filed herewith and any and all subsequent amendments to said registration statement, and generally to do all such things in our names and on our behalf in our capacities as officers and directors to enable Cabot Corporation to comply with the provisions of the Securities Act of 1933, as amended, and all requirements of the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by our said attorneys, or any of them, to said registration statement and any and all amendments thereto.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Patrick M. Prevost Patrick M. Prevost	President, Chief Executive Officer and Director (Principal executive officer)	May 5, 2009
/s/ Eduardo E. Cordeiro Eduardo E. Cordeiro	Executive Vice President and Chief Financial Officer (Principal financial officer)	May 5, 2009
/s/ James P. Kelly James P. Kelly	Vice President and Controller (Principal accounting officer)	May 5, 2009
/s/ John F. O'Brien John F. O'Brien	Director, Non-Executive Chairman of the Board	May 5, 2009
/s/ John S. Clarkeson John S. Clarkeson	Director	May 5, 2009

- 5 -

/s/ Juan Enriquez-Cabot Juan Enriquez-Cabot	Director	May 5, 2009
/s/ Arthur L. Goldstein Arthur L. Goldstein	Director	May 5, 2009
/s/ Gautam S. Kaji Gautam S. Kaji	Director	May 5, 2009
/s/ Roderick C.G. MacLeod Roderick C.G. MacLeod	Director	May 5, 2009
/s/ Henry F. McCance Henry F. McCance	Director	May 5, 2009
/s/ John K. McGillicuddy John K. McGillicuddy	Director	May 5, 2009
/s/ Ronaldo H. Schmitz Ronaldo H. Schmitz	Director	May 5, 2009
/s/ Lydia W. Thomas Lydia W. Thomas	Director	May 5, 2009
/s/ Mark S. Wrighton Mark S. Wrighton	Director	May 5, 2009
/s/ Shengman Zhang Shengman Zhang	Director	May 5, 2009
	C	

- 6 -

INDEX TO EXHIBITS

- Number
 Description

 4.1(1)
 Restated Certificate of Incorporation of Cabot Corporation (incorporated herein by reference to Exhibit 3.1 to the Quarterly Report on Form 10-Q of Cabot Corporation, File No. 1-5667, filed with the Commission on February 9, 2009).
- 4.2(1) The By-laws of Cabot Corporation, as amended (incorporated herein by reference to Exhibit 3 to the Quarterly Report on Form 10-Q of Cabot Corporation, File No. 1-5667, filed with the Commission on May 12, 2008).
- 5 Opinion of Brian A. Berube, Vice President and General Counsel
- 23.1 Consent of Brian A. Berube, Vice President and General Counsel (included in Exhibit 5)
- 23.2 Consent of Deloitte & Touche LLP
- 23.3 Consent of PricewaterhouseCoopers LLP
- 24 Power of attorney (included on the signature page of this registration statement)
- 99.1 Cabot Corporation 2009 Long-Term Incentive Plan (incorporated herein by reference to Appendix B of Cabot Corporation's Proxy Statement on Schedule 14A relating to the 2009 Annual Meeting of Stockholders, File No. 1-5667, filed with the Commission on January 28, 2009).

Re: Cabot Corporation 2009 Long-Term Incentive Plan

Ladies and Gentlemen:

I am Vice President and General Counsel of Cabot Corporation, a Delaware corporation (the "Company"), and have represented the Company in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933 (the "Act") of a Registration Statement on Form S-8 (the "Registration Statement") relating to up to 6,400,000 shares (the "Shares") of the Company's common stock, par value \$1.00 per share, issuable pursuant to the Cabot Corporation 2009 Long-Term Incentive Plan (the "Plan").

I have examined the Company's Restated Certificate of Incorporation and By-Laws, as amended to date, and originals, or copies certified or otherwise identified to my satisfaction, of corporate records of the Company, including minute books of the Company, certificates of public officials and of representatives of the Company, statutes and other instruments or documents, as a basis for the opinion hereinafter expressed. In making my examination, I have assumed that all signatures on all documents examined by me are genuine, that all documents submitted to me as originals are accurate and complete, that all documents submitted to me as accurate and complete.

Based on the foregoing, I am of the opinion that the Shares have been duly and validly authorized for issuance by all necessary corporate action on the part of the Company and, upon delivery thereof and payment therefor in accordance with the Plan and the Registration Statement, will be validly issued, fully paid, and non-assessable.

This opinion is limited to the original issuance of Shares by the Company. It is understood that this opinion is to be used only in connection with the offer and sale of the Shares while the Registration Statement is in effect.

I am a member of the Massachusetts Bar and the opinion set forth above is limited in all respects to the laws of The Commonwealth of Massachusetts and the General Corporation Law of the State of Delaware, including the applicable provisions of the Delaware Constitution and the reported cases interpreting those laws, as in effect on the date hereof.

I hereby consent to the filing of this opinion with the Commission in connection with the Registration Statement in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Act. In giving such consent, I do not thereby admit that I am in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission.

Very truly yours,

/s/ Brian A. Berube

Brian A. Berube Vice President and General Counsel

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 of our reports dated December 1, 2008, relating to the financial statements of Cabot Corporation (which report expresses an unqualified opinion and includes an explanatory paragraph relating to the Company's adoption of (i) as of September 30, 2007, the funded status and the disclosure requirements of Statement of Financial Accounting Standard No. 158, "Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans, an amendment of FASB Statement No. 87, 88, 106 and 132(R)" ("FAS 158"); (ii) as of September 30, 2008, the measurement requirements of FAS 158, and (iii) the adoption of Financial Accounting Standards Board ("FASB") Interpretation No. 48, "Accounting for Uncertainty in Income Taxes—an Interpretation of FASB Statement 109" as of October 1, 2007), and the effectiveness of Cabot Corporation's internal control over financial reporting, appearing in the Annual Report on Form 10-K of Cabot Corporation for the year ended September 30, 2008.

/s/ Deloitte & Touche LLP

Boston, Massachusetts May 5, 2009

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated December 14, 2006 relating to the financial statements, which appear in Cabot Corporation's Annual Report on Form 10-K for the year ended September 30, 2008.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts May 5, 2009