



DIVISION OF
CORPORATION FINANCE

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

February 15, 2013

Via E-mail

Eduardo E. Cordeiro
Executive Vice President and Chief Financial Officer
Cabot Corporation
Two Seaport Lane
Boston, MA 02210-2019

**Re: Cabot Corporation
Form 10-K for the Year Ended September 30, 2012
Filed November 29, 2012
File No. 1-5667**

Dear Mr. Cordeiro:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

General

1. Where a comment below requests additional disclosures or other revisions to be made, please show us in your supplemental response what the revisions will look like. These revisions should be included in your future filings, including your interim filings.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 31

Critical Accounting Policies, page 31

Goodwill and Long-Lived Assets, page 33

2. Please expand your disclosures to clarify the level at which you determine your reporting units and describe how you determined them. Specifically address if the businesses

underlying your Performance Material and Advanced Technologies business segments are reporting units. Refer to ASC 350-20-35-33 through 37 and ASC 350-20-55-1 through 55-9.

3. Please expand your disclosures regarding impairment of long-lived assets to address how you group long-lived assets for impairment and your basis for that determination.

Results of Operations, page 38

Provision for Income Taxes, page 41

4. You disclose on page 38 that your non-GAAP measure “operating tax rate” excludes discrete tax items, which are unusual or infrequent items, and the impact of certain items on both operating income and the tax provision. Please reconcile your effective tax rate to your operating tax rate and provide a statement disclosing the reasons why management believes that presentation of this non-GAAP financial measure provides useful information to investors. Refer to Item 10(e)(1)(i)(A) and (B) of Regulation S-K.

Item 8. Financial Statements and Supplementary Data, page 54

Note M. Venezuela, page 83

5. We note that given the uncertainties around the convertibility of the Venezuelan bolivar to the U.S. dollar and the ability of entities to actually repatriate U.S. dollars from Venezuela, the Company has endeavored, whenever possible, to repatriate the Company’s cash from its Venezuelan subsidiaries using available mechanisms. Please tell us and clarify in future filings whether the Company has been able to repatriate such cash during the periods presented and, if so, quantify the amounts repatriated.
6. We note that management has closely monitored its investment in the operating affiliate in Venezuela to ensure that the investment continues to be recoverable and that you still intend to convert substantially all bolivars held by its Venezuelan subsidiaries to U.S. dollars as soon as practical. In light of your recent ability or inability to repatriate cash from these subsidiaries, please tell us and expand your disclosures in future filings to clarify how you have determined that your investment is recoverable.

Note T. Commitments and Contingencies, page 102

7. We note your disclosure on page 103 that the \$7 million reserve for environmental matters represents your current best estimate of costs likely to be incurred for remediation. If there is at least a reasonable possibility that a loss exceeding amounts already recognized may have been incurred for any of your environmental proceedings, please revise to either disclose an estimate of the additional loss or range of loss, or state that such an estimate cannot be made. If you have not disclosed an estimate because the amount is immaterial, please disclose that fact in lieu of providing quantified amounts. Please refer to ASC 450-20-50.

Note V. Financial Information by Segment & Geographic Area, page 106

8. You identify four business segments: Reinforcement Materials, Performance Materials, Advanced Technologies, and Purification Solutions. Performance Material is comprised of two businesses: Specialty Carbons and Compounds and Fumed Metal Oxides. Advanced Technologies is comprised of five businesses: Inkjet Colorants, Aerogel, Security Materials, Elastomer Composites and Specialty Fluids. We have the following comments in this regard:
- Please tell us how you considered if these businesses are operating segments as defined by ASC 280-10-50;
 - Please revise your accounting policy to clarify how you identified your operating segments. Specifically, please clarify the level at which your chief operating decision maker (CODM) receives financial information for purposes of making decisions about the allocation of resources and evaluating performance; and
 - If you are aggregating any operating segments into reportable segments, please disclose this fact in accordance with ASC 280-10-50-21a and provide disclosures that confirm the aggregated operating segments all have similar economic characteristics in addition to similar products and services, processes, customers, distribution channels, and regulatory environments. Please refer to ASC 280-10-50-11 for guidance.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact Lisa Etheredge, Staff Accountant, at (202) 551-3424 or Jeanne Baker, Assistant Chief Accountant, at (202) 551-3691.

Sincerely,

/s/ Rufus Decker

Rufus Decker
Accounting Branch Chief