



DIVISION OF
CORPORATION FINANCE

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

January 7, 2011

William S. Johnson
Chief Financial Officer
Cabot Microelectronics Corporation
870 North Commons Drive
Aurora, Illinois 60504

**Re: Cabot Microelectronics Corporation
Forms 10-K for the fiscal year ended September 30, 2009 and 2010
Filed November 24, 2009 and November 23, 2010
File No. 000-30205**

Dear Mr. Johnson:

We have completed our reviews of your filings and do not have any further comments at this time.

Sincerely,

Brian Cascio
Accounting Branch Chief