



DIVISION OF
CORPORATION FINANCE

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

July 24, 2012

Via E-mail

Hudson La Force III, Senior Vice President and Chief Financial Officer
W.R. Grace & Co.
7500 Grace Drive
Columbia, MD 21044

**Re: W.R. Grace & Co.
Form 10-K for the year ended December 31, 2011
Filed February 24, 2012
Form 10-Q for the quarter ended March 31, 2012
Filed May 4, 2012
File No. 1-13953**

Dear Mr. La Force:

We have reviewed your response to our comment letter dated June 27, 2012 and have the following comment. In our comment, 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 comment applies to your facts and circumstances, please tell us why in your response.

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

Form 10-Q for the period ended March 31, 2012

We have read your response to our prior comment letter dated June 27, 2012 and appreciate the additional information you provided; however, it continues to appear to us that your non-GAAP liquidity measure, Adjusted Free Cash Flow, does not comply with Item 10(e)(ii)(A) of Regulation S-K and should not be presented in future filings.

You may contact Mindy Hooker at (202) 551-3732 or Anne McConnell at (202) 551-3709 or me at (202) 551-3768 with any questions.

Sincerely,

/s/ John Cash

John Cash
Branch Chief