



DIVISION OF
CORPORATION FINANCE

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

June 27, 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 filings 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 reviewed your Form 10-Q and your earnings release, furnished under Item 2.02 of Form 8-K, for the quarter ended March 31, 2012. We note you present a non-GAAP liquidity measure that you identify as "adjusted free cash flow." It appears to us that each item you adjust free cash flow for is an item that required or will require cash settlement. Therefore, it is not clear to us how or why you believe this non-GAAP liquidity measure complies with Item 10(e)(ii)(A) of Regulation S-K or Regulation G, including the requirement to disclose the most directly comparable GAAP measure with equal or greater prominence. Please revise future filings and earnings releases to fully comply Item 10(e) of Regulation S-K, Regulation G, and the Compliance & Disclosure Interpretations related to non-GAAP Financial Measures. Please provide us your proposed revisions.

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

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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 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