



DIVISION OF
CORPORATION FINANCE

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

September 29, 2010

Mr. 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 fiscal year ended December 31, 2009
Filed February 25, 2010
File No. 1-13953

Dear Mr. La Force:

We have completed our review of your Form 10-K and related filings and have no further comments at this time.

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

Sincerely,

John Cash
Branch Chief