W R GRACE & CO Form SC 13G/A February 15, 2006

SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

SCHEDULE 13G

Amendment No. 2

INFORMATION STATEMENT PURSUANT TO RULES 13d-1 AND 13d-2 UNDER THE SECURITIES EXCHANGE ACT OF 1934

W. R. Grace & Co. (NAME OF ISSUER)

Common Stock, \$0.01 par value (TITLE OF CLASS OF SECURITIES)

38388F108 (CUSIP NUMBER)

December 31, 2005 (Date of Event which requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

[] Rule 13d-1(b)
[x] Rule 13d-1(c)
[] Rule 13d-1(d)

(Page 1 of 17 Pages)

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

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(1) NAME OF REPORTING PERSON S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

	Ardsl	ey P	artners Fund II, L.P.		
(2)	CHECF	THE	APPROPRIATE BOX IF A MEMBER OF A GROUP **	(a) (b)	
(3)	SEC U	JSE C			
(4)	CITI2 Delaw		IP OR PLACE OF ORGANIZATION		
NUMBER OF		(5)	SOLE VOTING POWER 0		
BENEFICIA OWNED BY		. ,	SHARED VOTING POWER 930,000		
EACH REPORTING		(7)	SOLE DISPOSITIVE POWER 0		
PERSON WI	TH	(8)	SHARED DISPOSITIVE POWER 930,000		
(9)	BY E <i>P</i> 930,0	ACH R	AMOUNT BENEFICIALLY OWNED EPORTING PERSON		
(10)	CHECF IN RC	K BOX DW (9	IF THE AGGREGATE AMOUNT) EXCLUDES CERTAIN SHARES **		[]
(11)	PERCE	ENT C 10UNT	F CLASS REPRESENTED IN ROW (9)		
(12)	TYPE	OF R PN	EPORTING PERSON **		
	**	 SEE	INSTRUCTIONS BEFORE FILLING OUT!		

CUSIP No. 38388F108 13G/A PAGE 3 of 17 PAGES
(1) NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO.
OF ABOVE PERSON
Ardsley Partners Institutional Fund, L.P.
(2) CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP **
(a) [x]
(b) []
(3) SEC USE ONLY

	CITIZ Delaw		IP OR PLACE OF ORGANIZATION			
NUMBER OF		(5)	SOLE VOTING POWER 0			
BENEFICIAI	LLY	• •	SHARED VOTING POWER 590,500			
OWNED BY						
EACH		(7)	SOLE DISPOSITIVE POWER 0			
REPORTING PERSON WIT		(8)	SHARED DISPOSITIVE POWER 590,500			
(9)		CH RH	AMOUNT BENEFICIALLY OWNED EPORTING PERSON			
(10)			IF THE AGGREGATE AMOUNT EXCLUDES CERTAIN SHARES **			[]
(11)		IOUNT	F CLASS REPRESENTED IN ROW (9)			
(12)	TYPE	OF RI PN	EPORTING PERSON **			
	**	SEE	INSTRUCTIONS BEFORE FILLING OUT!			
CUSIP No.	38388	F108	13G/A P2	AGE 4	of 1	7 PAGES
(1)	S.S. OF AB	OR I. OVE H	EPORTING PERSON .R.S. IDENTIFICATION NO. PERSON ffshore Fund Ltd.			
(2)	CHECK	THE	APPROPRIATE BOX IF A MEMBER OF A GROUP **		(a) (b)	
(3)	SEC U	ISE OI	JLY			
(4)			IP OR PLACE OF ORGANIZATION irgin Islands			
NUMBER OF	_	(5)	SOLE VOTING POWER 0			

OWNED BY	LLY (SHARED VOTING POWER 1,161,500	
OWNED BI				
EACH	(, ,	SOLE DISPOSITIVE POWER 0	
REPORTING	_			
PERSON WIT	ГН (SHARED DISPOSITIVE POWER 1,161,500	
(9)		CH RE	AMOUNT BENEFICIALLY OWNED PORTING PERSON	
(10)			IF THE AGGREGATE AMOUNT EXCLUDES CERTAIN SHARES ** []	
(11)			CLASS REPRESENTED IN ROW (9)	
(12)	TYPE C CO)F RE	CPORTING PERSON **	
	**	SEE	INSTRUCTIONS BEFORE FILLING OUT!	

CUSIP	No.	38388	F108		13G/A	PAGE 5	o of	17	PAGES
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	(2)				A MEMBER OF A GROUP *	*)	
		SEC U							
			ENSH	IP OR PLACE OF ORGAN	NIZATION				
NUMBE: SHARE			(5)	SOLE VOTING POWER 0					
			• •	SHARED VOTING POWER 2,740,000	R				
OWNED EACH			(7)	SOLE DISPOSITIVE PO	DWER				
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(9)	AGGRE	GATE	AMOUNT BENEFICIALLY		
PERSON WIT	СН		SHARED DISPOSITIVE POWER 1,520,500		
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EACH			SOLE DISPOSITIVE POWER 0		
OWNED BY			1,520,500		
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CUSIP No.	38388	F108	13G/A PA	GE 6 of	17 PAGES
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(12)	TYPE	OF RE PN;	PORTING PERSON ** IA		
. ,		IOUNT	CLASS REPRESENTED IN ROW (9)		
(10)			IF THE AGGREGATE AMOUNT EXCLUDES CERTAIN SHARES **		[]
(9)		BY E	AMOUNT BENEFICIALLY CACH REPORTING PERSON		
PERSON WIT	ГН		SHARED DISPOSITIVE POWER 2,740,000		

	OWNED 1,520		EACH REPORTING PERSON		
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(11)			F CLASS REPRESENTED IN ROW (9)		
(12)	TYPE (DF R PN	EPORTING PERSON **		
	**	SEE	INSTRUCTIONS BEFORE FILLING OUT!		
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(1)	S.S. (Of AB(OR I OVE	EPORTING PERSON .R.S. IDENTIFICATION NO. PERSON Hempleman		
(2)	CHECK	THE	APPROPRIATE BOX IF A MEMBER OF A GROUP **	(a) (b)	
(3)	SEC U	 SE O	NLY		
(4)	CITIZI United		IP OR PLACE OF ORGANIZATION ates		
NUMBER OF			SOLE VOTING POWER 75,000		
		• •	SHARED VOTING POWER 2,740,000		
EACH		(7)	SOLE DISPOSITIVE POWER 75,000		
REPORTING PERSON WI			SHARED DISPOSITIVE POWER 2,740,000		
(9)	OWNED 2,8	ВҮ 15,0			
(10)		BOX	IF THE AGGREGATE AMOUNT) EXCLUDES CERTAIN SHARES **		[]
(11)			F CLASS REPRESENTED IN ROW (9)		

4.21%

	1.210
(12)	TYPE OF REPORTING PERSON **
	IN

** SEE INSTRUCTIONS BEFORE FILLING OUT!

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The Schedule 13G Amendment filed on February 11, 2005 is hereby amended by this Amendment No. 2 to the Schedule 13G.

ITEM 1(a). NAME OF ISSUER:

The name of the issuer is W. R. Grace & Co. (the "Company").

ITEM 1(b). ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES: 7500 Grace Drive, Columbia, Maryland 21044

ITEM 2(a). NAME OF PERSON FILING:

This statement is filed by:

- (i) Ardsley Partners Fund II, L.P., a Delaware limited partnership ("AP II"), with respect to the shares of Common Stock (defined in Item 2(d) below) directly owned by it;
- (ii) Ardsley Partners Institutional Fund, L.P., a Delaware limited partnership ("Ardsley Institutional"), with respect to the shares of Common Stock directly owned by it;
- (iii) Ardsley Offshore Fund Ltd., a British Virgin Islands Corporation ("Ardsley Offshore"), with respect to the shares of Common Stock directly owned by it;
- (iv) Ardsley Advisory Partners, a New York general partnership ("Ardsley") which serves as Investment Manager of Ardsley Offshore, and as the Investment Adviser of AP II, Ardsley Institutional and certain managed accounts, with respect to the shares of Common Stock directly owned by Ardsley Offshore, AP II, Ardsley Institutional and the managed accounts;
- (v) Ardsley Partners I, a New York general partnership ("Ardsley Partners") which serves as General Partner of Ardsley, AP II and Ardsley Institutional; and
- (vi) Philip J. Hempleman ("Mr. Hempleman"), the managing partner of Ardsley and of Ardsley Partners and by virtue of his position as managing partner, be deemed to have power to direct the voting and disposition of the Common Stock held or controlled by Ardsley, Ardsley Partners, AP II, Ardsley Institutional, Ardsley Offshore and the managed accounts. Mr Hempleman disclaims beneficial ownership of the Common Stock reported herein, other than the portion of such shares which relates to his individual economic interest in AP II.

The foregoing persons are hereinafter sometimes collectively

referred to as the "Reporting Persons". Any disclosures herein with respect to persons other than the Reporting Persons are made on information and belief after making inquiry to the appropriate party.

ITEM 2(b). ADDRESS OF PRINCIPAL OFFICE OR, IF NONE, RESIDENCE:

The address of the business office of each of the Reporting Persons, with the exception of Ardsley Offshore, is 262 Harbor Drive, Stamford, Connecticut 06902.

The address of the registered office of Ardsley Offshore is Romasco Place, Wickhams Cay 1, Roadtown Tortola, British Virgin Islands.

ITEM 2(c). CITIZENSHIP:

AP II and Ardsley Institutional are Delaware limited partnerships. Ardsley Offshore is a British Virgin Islands Corporation. Ardsley and Ardsley Partners are New York general partnerships. Mr. Hempleman is a United States Citizen.

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ITEM 2(d). TITLE OF CLASS OF SECURITIES: Common Stock, $0.01\ par\ value\ ("Common Stock")$

ITEM 2(e). CUSIP NUMBER: 38388F108

ITEM 3. IF THIS STATEMENT IS FILED PURSUANT TO RULES 13d-1(b), OR 13d-2(b), CHECK WHETHER THE PERSON FILING IS A:

- (a) [] Broker or dealer registered under Section 15 of the Act
- (b)[] Bank as defined in Section 3(a)(6) of the Act
- (c)[] Insurance Company as defined in Section 3(a)(19) of the Act
- (d)[] Investment Company registered under Section 8 of the Investment Company Act
- (e)[] Investment Adviser registered under Section 203 of the Investment Advisers Act of 1940
- (f)[] Employee Benefit Plan, Pension Fund which is subject to the provisions of the Employee Retirement Income Security Act of 1974 or Endowment Fund; see Rule 13d-1(b)(1)(ii)(F)
- (g)[] Parent Holding Company, in accordance with Rule 13d-1(b)(ii)(G); see item 7
- (h) () Group, in accordance with Rule 13d-1(b)(1)(ii)(H)

If this statement is filed pursuant to Rule 13d-1(c), check the box. [X]

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ITEM 4. OWNERSHIP.

Α. Ardsley Partners Fund II, L.P.

(a) Amount beneficially owned: 930,000

(b) Percent of class: 1.39%. The percentages used herein and

in the rest of Item 4 are calculated based upon the 66,700,000 shares of Common Stock issued and outstanding at December 31, 2005 as reflected on Bloomberg.

- (c) (i) Sole Power to vote or direct the vote: -0-
 - (ii) Shared power to vote or direct the vote: 930,000
 - (iii) Sole power to dispose or direct the disposition: -0-
 - (iv) Shared power to dispose or direct the disposition: 930,000
- Ardsley Partners Institutional Fund, L.P. в.
 - (a) Amount beneficially owned: 590,500
 - (b) Percent of class: 0.88%
 - (c) (i) Sole Power to vote or direct the vote: -0-
 - (ii) Shared power to vote or direct the vote: 590,500
 - (iii) Sole power to dispose or direct the disposition: -0-
 - (iv) Shared power to dispose or direct the disposition: 590,500
- Ardsley Offshore Fund Ltd. с.
 - (a) Amount beneficially owned: 1,161,500
 - (b) Percent of class: 1.74%
 - (c) (i) Sole Power to vote or direct the vote: -0-
 - (ii) Shared power to vote or direct the vote: 1,161,500
 - (iii) Sole power to dispose or direct the disposition: -0-
 - (iv) Shared power to dispose or direct the disposition: 1,161,500
- Ardsley Advisory Partners D.
 - (a) Amount beneficially owned: 2,740,000
 - (b) Percent of class: 4.09%
 - (c) (i) Sole Power to vote or direct the vote: -0-
 - (ii) Shared power to vote or direct the vote: 2,740,000
 - (iii) Sole power to dispose or direct the disposition: -0-
 - (iv) Shared power to dispose or direct the disposition: 2,740,000
- Ε. Ardsley Partners I
 - (a) Amount beneficially owned: 1,520,000
 - (b) Percent of class: 2.27%
 - Sole Power to vote or direct the vote: -0-(c) (i)
 - (ii) Shared power to vote or direct the vote: 1,520,000
 - (iii) Sole power to dispose or direct the disposition: -0-
 - (iv) Shared power to dispose or direct the disposition: 1,520,000
- Philip J. Hempleman F.
 - (a) Amount beneficially owned: 2,815,000
 - (b) Percent of class: 4.21%
 - (c) (i) Sole Power to vote or direct the vote: 75,000
 - (ii) Shared power to vote or direct the vote: 2,740,000
 - (iii) Sole power to dispose or direct the disposition: 75,000
 - (iv) Shared power to dispose or direct the disposition: 2,740,000

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ITEM 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS.

If this statement is being filed to report the fact that as of the date hereof the Reporting Persons have ceased to be the beneficial owner of more than five percent of the Common Stock, check the following [X].

ITEM 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON.

Not applicable.

- ITEM 7. IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT HOLDING COMPANY. Not applicable.
- ITEM 8. IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF THE GROUP. Not applicable.
- ITEM 9. NOTICE OF DISSOLUTION OF GROUP. Not applicable.

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ITEM 10. CERTIFICATION.

Each of the Reporting Persons hereby makes the following certification:

By signing below I certify, to the best of my knowledge and belief, the securities referred to above were acquired in the ordinary course of business, were not acquired for the purpose of and do not have the effect of changing or influencing the control of the issuer of such securities and were not acquired in connection with or as a participant in any transaction having such purposes or effect.

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SIGNATURES

After reasonable inquiry and to the best of their knowledge and belief, the undersigned certify that the information set forth in this statement is true, complete and correct.

DATED: as of February 14, 2006

ARDSLEY PARTNERS FUND II, L.P. BY: ARDSLEY PARTNERS I, GENERAL PARTNER

BY: /s/ Steve Napoli

Steve Napoli General Partner

ARDSLEY PARTNERS INSTITUTIONAL FUND, L.P. BY: ARDSLEY PARTNERS I, GENERAL PARTNER

BY: /s/ Steve Napoli

Steve Napoli

General Partner

ARDSLEY OFFSHORE FUND LTD.

BY: /s/Neil Glass Neil Glass Vice-President and Administrative Manager

ARDSLEY ADVISORY PARTNERS

BY: /s/ Steve Napoli

-----Steve Napoli General Partner

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ARDSLEY PARTNERS I

BY: /s/ Steve Napoli Steve Napoli

General Partner

PHILIP J. HEMPLEMAN, Individually

BY: /s/ Steve Napoli

------Steve Napoli

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EXHIBIT 1 JOINT FILING AGREEMENT PURSUANT TO RULE 13d-1(k)(1)

The undersigned acknowledge and agree that the foregoing statement on Schedule 13G/A is filed on behalf of each of the undersigned and that all subsequent amendments to this statement on Schedule 13G/A shall be filed on behalf of each of the undersigned without the necessity of filing additional joint filing statements. The undersigned acknowledge that each shall be responsible for the timely filing of such amendments, and for the completeness and accuracy of the information concerning him, her or it contained herein, but shall not be responsible for the completeness and accuracy of the information concerning the other entities or persons, except to the extent that he, she or it knows or has reason to believe that such information is inaccurate.

Dated: as of February 14, 2006

BY:	SLEY PARTNERS FUND II, L.P. ARDSLEY PARTNERS I, GENERAL PARTNER
BY:	/s/ Steve Napoli
	Steve Napoli General Partner
BY:	SLEY PARTNERS INSTITUTIONAL FUND, L.P. ARDSLEY PARTNERS I, GENERAL PARTNER
BY:	/s/ Steve Napoli
	Steve Napoli General Partner
	ARDSLEY OFFSHORE FUND LTD.
BY:	/s/ Neil Glass
	Neil Glass Vice-President and Administrative Manager
ARD	SLEY ADVISORY PARTNERS
BY:	/s/ Steve Napoli
	Steve Napoli General Partner

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ARDSLEY PARTNERS I

BY: /s/ Steve Napoli

Steve Napoli General Partner

PHILIP J. HEMPLEMAN, Individually

BY: /s/ Steve Napoli

Steve Napoli

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EXHIBIT 2 Evidence of Power Of Attorney

KNOW ALL PERSONS BY THESE PRESENTS, that Philip J. Hempleman, an individual residing at 2 Dublin Hill Drive, Greenwich, CT 06831, does hereby nominate, constitute and appoint Steven N. Napoli, his true and lawful attorney-in-fact, for him, in his name, place and stead, in the sole discretion of any such attorney-in-fact, to prepare, or cause the preparation by other appropriate persons of, and to execute and deliver on behalf of him, in connection with any securities of any entity, any filing of any form under the Securities Exchange Act of 1934, as amended, and to file the same, with all other documents in connection therewith, in each case, with the Securities and Exchange Commission, and generally do all such things in his name and on his behalf in connection therewith consistent with the provisions of the Securities and Exchange Act of 1934, as amended, and all requirements of the Securities and Exchange Commission, and to take any and all other action, as any such attorney-in-fact may deem necessary or desirable in connection therewith.

Philip J. Hempleman hereby ratifies and confirms the execution, delivery and performance (whether before or after the date hereof) of the above-mentioned instruments or other documents by the attorney-in-fact and all that the attorney-in-fact shall lawfully do or cause to be done by virtue hereof.

Philip J. Hempleman hereby agrees that no person or other entity dealing with the attorney-in-fact shall be bound to inquire into such attorney-in-fact's power and authority hereunder and any such person or entity shall be fully protected in relying on such power of authority.

This Power of Attorney Shall be governed and construed in accordance with the laws of the State of Connecticut without reference to principles of conflicts of law.

Executed as of this 4th day of February, 2004

PHILIP J. HEMPLEMAN, Individually

BY: /s/ Philip J. Hempleman

Philip J. Hempleman