Registration No. 333-94161

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Post-Effective Amendment No. 1 to FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

INHALE THERAPEUTIC SYSTEMS, INC.

(Exact name of registrant as specified in charter)

Delaware (State or other jurisdiction of incorporation or organization)

94-3134940

(I.R.S. Employer Identification No.)

Inhale Therapeutic Systems, Inc. 150 Industrial Road San Carlos, CA 94070 (650) 631-3100

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

AJIT S. GILL
PRESIDENT, CHIEF EXECUTIVE OFFICER AND DIRECTOR
INHALE THERAPEUTIC SYSTEMS, INC.
150 INDUSTRIAL ROAD
SAN CARLOS, CA 94070
(650) 631-3100

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

MARK P. TANOURY, ESQ. JOHN M. GESCHKE, ESQ. COOLEY GODWARD LLP FIVE PALO ALTO SQUARE 3000 EL CAMINO REAL PALO ALTO, CA 94306-2155 (650) 843-5000

The purpose of this filing is to deregister the resale of \$10,000 of unregistered 6³/4% Convertible Subordinated Debentures due 2006 (the "Debentures") and Common Stock issuable upon conversion thereof, that remain unsold as of the date of this filing under that certain Registration Statement on Form S-3 (File No. 333-94161), as amended, and together with all exhibits, amendments and supplements thereto (the "Registration Statement"), as originally filed by Inhale Therapeutic Systems, Inc. (the "Registrant") with the Commission on January 6, 2000. All remaining amounts registered under the Registration Statement have either been redeemed by the Registrant or sold and a prospectus delivered upon sale.

This request is made based upon the following grounds:

Pursuant to the terms of a Resale Registration Rights Agreement, dated October 12, 1999, entered into by and among the Registrant, Lehman Brothers Inc., Deutsche Bank Securities Inc. and U.S. Bancorp Piper Jaffray Inc. (the "Agreement") in connection with the sale of an aggregate principal amount of \$108,450,000 of the Debentures and the shares of common stock convertible therein, the parties thereto agreed that the Registration Statement would remain in effect until: (i) two years following the last date of original issuance of the Debentures; or (ii) such shorter period that will terminate when (x) all of the holders of Transfer Restricted Securities (as defined in the Agreement) are able to sell all Transfer Restricted Securities immediately without restriction pursuant to

Rule 144(k); (y) when all Transfer Restricted Securities have ceased to be outstanding; or (z) all Transfer Restricted Securities registered under the Registration Statement have been sold.

Because the last date of original issuance of the Debentures was November 10, 1999, the Registrant no longer has an obligation under the Agreement to maintain the Registration Statement's effectiveness.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3, as amended, and has duly caused this Post-Effective Amendment to Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Carlos, County of San Mateo, State of California on December 21, 2001.

By:

/s/ AJIT S. GILL

Durcuant	to the requirements of the Securities Act of 1	Ajit S. Gill President, Chief Executive Officer and Director 1933, this Post-Effective Amendment No. 1 to the Registration Statement has been signed by the		
	ersons in the capacities and on the dates indic	cated:		
	SIGNATURE	TITLE	DATE	
	/s/ AJIT S. GILL	President, Chief Executive Officer and Director (Principal Executive Officer)	December 21, 2001	
	Ajit S. Gill	Director (Finicipal Executive Officer)		
	*			
	Robert B. Chess	Chairman of the Board	December 21, 2001	
	*	Vice President, Finance and Administration, Chief Financial Officer and Assistant Secretary (Principal Financial and Accounting Officer)	December 21, 2001	
	Brigid A. Makes			
	*			
	John S. Patton	Vice President and Director	December 21, 2001	
	*			
	James B. Glavin	- Director	December 21, 2001	
	*			
	Melvin Perelman	Director	December 21, 2001	
	*			
	Irvin Lerner	- Director	December 21, 2001	
		3		
	Roy A. Whitfield	Director		
	Chris Kuebler	- Director		
*By:	/s/ AJIT S. GILL			
	Ajit S. Gill As Attorney-in-Fact.			

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SIGNATURES