

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

AMENDMENT NO. 1
TO
FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

ADVANCED POLYMER SYSTEMS, INC.
(Exact name of registrant as specified in its charter)

DELAWARE 94-2875566
(State or other jurisdiction of (I.R.S. employer identification
incorporation or organization) number)

3696 HAVEN AVENUE, REDWOOD CITY, CALIFORNIA 94063 (415) 366-2626
(Address, including zip code, and telephone number, including
area code, of registrant's principal executive offices)

MICHAEL P.J. O'CONNELL
3696 HAVEN AVENUE, REDWOOD CITY, CALIFORNIA 94063
(Name, address, including zip code, and telephone number, including area code,
of agent for service)

with copies of all orders, notices and communications to:
Richard A. Peers
Heller, Ehrman, White & McAuliffe
525 University Avenue, Palo Alto, California 94301 (415) 324-7000

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC:
As soon as practicable after the Registration Statement becomes effective.

If the only securities being registered on this Form are being offered pursuant
to dividend or interest reinvestment plans, please check the following box. / /

If any of the securities being registered on this Form are to be offered on a
delayed or continuous basis pursuant to Rule 415 under the Securities Act of
1933, other than securities offered only in connection with dividend or interest
reinvestment plans, check the following box. /x/

CALCULATION OF REGISTRATION FEE

TITLE OF EACH CLASS OF SECURITIES TO BE REGISTERED	AMOUNT TO BE REGISTERED	PROPOSED MAXIMUM OFFERING PRICE PER SHARE	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE	AMOUNT OF REGISTRATION FEE
Common Stock, \$.01 par value	1,097,711	\$8.26 (1)	\$ 9,067,093.00 (1)	\$3,127.00 (1)
Common Stock, \$.01 par value	197,500	\$7.00 (2)	\$ 1,382,500.00 (2)	\$ 477.00
TOTAL:	1,295,211	-	\$10,449,593.00	\$3,604.00 (3)

(1) Estimated solely for purpose of computing the amount of the registration
fee based on the average of the high and low prices of the Common Stock on
the Nasdaq National Market on April 4, 1996, as reported in The Wall
Street Journal.

(2) Calculated using as the offering price the exercise price of warrants
pursuant to which such shares may be issued by the Registrant.

(3) Of this amount, \$2,457 was previously paid.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

PROSPECTUS
 1,295,211 SHARES, INCLUDING 197,500 SHARES
 ISSUABLE ON EXERCISE OF OUTSTANDING WARRANTS
 TO PURCHASE COMMON STOCK AT A PRICE OF
 \$7.00 PER SHARE (THE "WARRANTS")

ADVANCED POLYMER SYSTEMS, INC.

Of the 1,295,211 shares (the "Shares") of Common Stock, \$.01 par value, (the "Common Stock") of Advanced Polymer Systems, Inc. (the "Company" or "APS") covered by this prospectus (the "Prospectus"), 197,500 Shares are issuable by the Company on exercise of warrants ("Warrants") to purchase Common Stock and 1,097,711 of the Shares are currently outstanding. All of the Shares may be sold by the holders of Shares (collectively, the "Selling Stockholders") named in this Prospectus. See "Selling Stockholders." The Company will not receive any of the proceeds from the sale of Shares by the Selling Stockholders; however, the Company could receive up to \$1,382,500 on the exercise of the Warrants.

The Company has not made any underwriting arrangements with respect to the Shares issuable on exercise of the Warrants. The Company's Common Stock is traded on the Nasdaq National Market under the symbol "APOS". On April 4, 1996, the closing price for the Common Stock, as reported on the Nasdaq National Market, was \$8.38.

Shares covered by this Prospectus may be offered for sale from time to time by the Selling Stockholders at such prices and on such terms as may then be obtainable, in negotiated transactions, or otherwise. See "Plan of Distribution." This Prospectus may be used by the Selling Stockholders or by any broker-dealer who may participate in sales of securities covered hereby. The Selling Stockholders and the brokers and dealers through whom such sales are effected may be deemed to be underwriters under the Securities Act of 1933, as amended (the "Securities Act"). The Selling Stockholders will pay all commissions, transfer taxes, and other expenses associated with the sales of securities by them. The Company has paid the expenses of the preparation of this Prospectus. The Company has agreed to indemnify the Selling Stockholders against certain liabilities, including liabilities arising under the Securities Act.

APS has filed with the Securities and Exchange Commission (the "Commission") a Registration Statement under the Securities Act with respect to the securities offered by this Prospectus. As permitted by the rules and regulations of the commission, this Prospectus does not contain all of the information set forth in the Registration Statement and the exhibits and schedules thereto. For further information with respect to APS and the securities offered hereby, reference is made to the Registration Statement and the exhibits thereto, which may be examined without charge at the public reference facilities maintained by the Commission at Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549, and copies of which may be obtained from the Commission upon payment of the prescribed fees.

 SECURITIES OFFERED HEREBY INVOLVE A HIGH DEGREE OF RISK.
 (See "RISK FACTORS" on Page 3.)

 THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE
 SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION
 NOR HAS THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES
 COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS.
 ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this Prospectus is April 8, 1996

No dealer, salesman, or any other person has been authorized to give any information or to make any representations or projections of future performance other than those contained in this Prospectus, and any such other information, projections, or representations, if given or made, must not be relied upon as having been so authorized. The delivery of this Prospectus or any sale hereunder at any time does not imply that the information herein is correct as of any time subsequent to its date. This Prospectus does not constitute an offer to sell or a solicitation of an offer to buy any of the securities offered hereby in any jurisdiction where, and to any person to whom, it is unlawful to make such offer or solicitation.

AVAILABLE INFORMATION

This Prospectus omits certain of the information contained in the Registration Statement covering the Common Stock that is on file with the Securities and Exchange Commission (the "Commission"). The Company is subject to the informational requirements of the Securities Exchange Act of 1934, as amended (the "1934 Act") and in accordance therewith files reports, proxy statements and other information with the Commission. Such Registration Statement, reports, proxy statements and other information can be inspected and copied at public reference facilities maintained by the Commission at Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549. Copies of such material can be obtained at prescribed rates from the Public Reference Section of the Commission at such address. Such reports, proxy statements and other information can also be inspected at the Commission's regional offices at 7 World Trade Center, Suite 1300, New York, New York 10048 and 500 West Madison, Chicago, Illinois 60661, and at the offices of the Nasdaq Stock Market at 9513 Key West Avenue, Rockville, Maryland 20850-3389.

DOCUMENTS INCORPORATED BY REFERENCE

There are hereby incorporated in this Prospectus by reference the following documents filed pursuant to the 1934 Act: (i) the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 1995; (ii) the Company's Proxy Statement for the Annual Meeting of Shareholders held on June 14, 1995; and (iii) the description of the Company's securities contained in its Form 8-A Registration Statements filed pursuant to Section 12 of the 1934 Act.

All documents filed by the Company pursuant to Section 13(a), 13(c), 14 or 15(d) of the 1934 Act after the date of this Prospectus and prior to the termination of the offering of the securities offered hereby shall be deemed to be incorporated by reference in this Prospectus.

The Company hereby undertakes to provide without charge to each person, including any beneficial owner, to whom a copy of this Prospectus has been delivered, upon the written or oral request of such person, a copy of any or all of the documents referred to above which have been or may be incorporated in this Prospectus by reference, other than exhibits to such documents which are not specifically incorporated by reference into the information that this Prospectus incorporates. Requests for such copies should be directed to: Advanced Polymer Systems, Inc., 3696 Haven Avenue, Redwood City, California 94063, Attention: Investor Relations, Telephone: (415) 366-2626.

RECENT DEVELOPMENTS

The Company has filed two new drug applications ("NDA") with the U.S. Food and Drug Administration ("FDA") and is awaiting final action by the FDA on these applications. The first NDA covers a melanin-based sunscreen product for the Company's own portfolio and the second NDA covers a prescription acne preparation licensed to Ortho McNeil Pharmaceuticals (a Johnson & Johnson subsidiary).

During the third and fourth quarters of 1995, the Company received cash infusions of \$7.4 million in the form of bank borrowing of \$3.0 million, a lease financing for \$2.9 and subordinated debt of \$1.5 million.

RISK FACTORS

The Shares of Common Stock offered hereby by the Selling Stockholders involve a high degree of risk and prospective purchasers should carefully consider the following factors.

History of Losses. The Company has incurred cumulative losses through December 31, 1995 of approximately \$62 million, of which approximately \$9.4 million was incurred in the year ended December 31, 1995, and anticipates that losses will continue for at least the next 12 months as the Company continues research, development, production and marketing activities. There can be no assurance that future revenues from product sales will be significant, that the Company will be able to sell products at a profit or that the Company will become profitable.

Capital Resources. On December 31, 1995, the Company had \$5.2 million in cash, cash equivalents and short-term marketable securities. In the year ended December 31, 1995, cash of approximately \$8.5 million was used by operations. The Company's existing cash, cash equivalents and short-term marketable securities, collections of trade accounts receivable, interest income and funds generated from operations, are expected to be sufficient to meet the Company's near-term cash requirements assuming no changes to existing business plans. However, if the Company's costs are higher than expected or revenues do not meet expectations, the Company may have to pursue other opportunities to generate additional cash to sustain and develop its business, including joint ventures, licensing and other debt and equity financings. If such additional funding is required, but is unavailable on commercially reasonable terms, the Company would have to significantly reduce operating expenses, by decreasing spending on advertising and promotion activities, outside clinical programs and a variety of other discretionary external expenditures, which could adversely affect operations.

New Technology; No Proof of Market Acceptance. The Company's Microsponge(R) products are based on relatively new technologies. The Company has successfully entrapped numerous ingredients and agents (such as sunscreens, moisturizers, fragrances and oils) and believes its products provide greater efficacy and increased functionality. However, commercialization of products utilizing the Company's Microsponge delivery systems is only now beginning, and there can be no assurance that such products will be successfully commercialized by the Company or others.

Marketing. The Company is utilizing a combination of collaboration agreements and independent efforts to market its Microsponge products. The collaborative arrangements are intended to provide APS with the marketing expertise and/or financial strength of other companies. There can be no assurance that such collaborative arrangements will prove successful in marketing products on behalf of the Company. The Company markets four of its own consumer products, as well as several consumer products produced by Johnson & Johnson Consumer Products, Inc. ("Johnson & Johnson"), through its wholly owned subsidiary Premier, Inc. ("Premier") which the Company acquired in April 1993. Premier has had a limited history in marketing certain over-the-counter drug and toiletry products, and there can be no certainty that Premier will be able to continue to market products produced by the Company or others.

Seasonality. The business of Premier is highly seasonal. Currently, it markets and distributes two sunscreen product lines and a depilatory product line, the sales of which are heavily weighted to the first two fiscal quarters. Consequently, results of operations for these interim periods are not necessarily indicative of results for the full fiscal year.

Dependence on Key Employees. The Company's developments to date and in the future depend greatly on the efforts of key management and technical employees. The loss of any of these key contributors could have an adverse impact on the progress of the Company's business.

Inventory Build-Up. The Company's exclusive distribution arrangement with Johnson & Johnson requires Premier to increase inventory levels at the beginning of each year sufficient to satisfy anticipated demand for sunscreen products during the selling season. Extended terms are given to the Company on these products by Johnson & Johnson so that accounts payable are not due until the third fiscal quarter. The Company offers similar extended terms to retailers, and anticipates paying amounts owed to Johnson & Johnson from retail accounts receivable.

Government Regulation. Certain of the Company's products are subject to regulation by numerous national and local governmental authorities in the United States and by like regulatory authorities in other countries where the Company intends to test and market pharmaceutical products that it may develop. The regulatory process, which includes preclinical testing and clinical trials to establish product safety and efficacy, can take many years and require the expenditure of substantial resources. There can be no assurance that even after such time and expenditure, regulatory agency approvals will be obtained. Moreover, if regulatory agency approval of a product is granted, such approval may entail limitations on the indicated uses for which the product may be marketed. Further, even if such regulatory approval is obtained, a marketed product and its manufacture are subject to continued review by regulatory authorities.

In addition, although personal care products are not currently subject to active regulation by the FDA in the same manner as pharmaceutical products, more extensive regulation could occur in the future. Such regulation could impose additional costs on the Company or slow the introduction of personal care products utilizing the Company's delivery systems.

Competition, Markets and Technological Change. Other companies are developing products based on enhanced delivery technologies for cosmetic, therapeutic and industrial applications, and technological developments are expected to occur at a rapid pace. There can be no assurance that other technologies will not prove superior to the Company's technology. APS is in competition with other companies that possess greater financial and technical resources, manufacturing and marketing capabilities, and experience in testing and obtaining any necessary regulatory approval. The Company also competes with many companies, most with greater financial resources, in marketing over-the-counter personal care products.

Manufacturing. Products utilizing the Company's Microsponge delivery systems must be manufactured at a competitive cost in far greater quantities than now produced by the Company. The Company has a manufacturing facility in Lafayette, Louisiana, and research laboratory and pilot plant facilities in Lafayette, Louisiana and in Redwood City, California. The Company's manufacturing capacity is currently 750,000 to 1,000,000 pounds a year, but successful commercialization of certain products may require manufacturing in quantities exceeding the Company's current capacity. The Company believes it can increase its manufacturing capacity through installation of additional equipment, but there can be no assurance that the Company will be able to achieve the requisite increase in manufacturing capacity within the time and at a cost commensurate with effective product commercialization.

Patents and Trade Secrets. There can be no assurance that any patents owned or controlled by APS will provide commercially significant protection of the Company's technology or ensure that the Company may not be determined to infringe valid patents of others. The Company's patents have not been tested in court, and the validity and scope of the Company's proprietary rights could be challenged. The Company has also received foreign patents, but since the patent laws of foreign countries differ from those of the United States, the degree of protection afforded by any foreign patents may be different from that available under U.S. patent laws.

The Company also relies on trade secrets and proprietary know-how which it seeks to protect by confidentiality agreements with its collaborators, employees and consultants. There can be no assurance that these agreements will not be breached, that the Company will have adequate remedies for any breach or that the Company's trade secrets and proprietary know-how will not otherwise become known or be discovered by competitors.

Possible Volatility of Stock Price; Shares Eligible for Future Sale. The market price of the Company's Common Stock has been and may continue to be highly volatile. Future events, many of which will be beyond the control of the Company, as well as expected quarterly fluctuations in revenues and financial results, may have a significant impact on the market price of the Company's Common Stock. Future sales of Shares by the Selling Stockholders or by other current stockholders and by option holders and warrant holders who exercise Company stock options or warrants could have a depressive effect on the market price of the Company's Common Stock.

Reliance on Collaborators. The Company has entered into collaborative agreements with certain major corporations pursuant to which such companies are entitled to certain product and marketing rights. The Company also expects to rely, at least in part, on additional collaborative agreements to develop and commercialize certain future products. There can be no assurance that the Company will be able to negotiate acceptable collaborative agreements in the future, or that the Company's existing collaborative agreements or such future collaborative agreements will be successful.

Anti-Takeover Provisions. The Company's Board of Directors may authorize the issuance of up to 2,500,000 shares of Preferred Stock and fix the rights thereof, without any vote or action by the stockholders. The issuance of Preferred Stock may have the effect of delaying, deferring or preventing a change of control of the Company, and the existence of this anti-takeover provision could make the Company less attractive to any potential acquiror and could result in stockholders receiving less for their shares than would otherwise be available in the event of a takeover attempt.

USE OF PROCEEDS

The Company will not receive any of the proceeds from the sale of the Shares by the Selling Stockholders. The Company could receive up to \$1,382,500 if the Warrants are exercised in full. No assurance can be given that any of the Warrants will be exercised. The Company expects that any net proceeds from the exercise of the Warrants will be used for working capital and general corporate purposes, including product development and marketing. Pending utilization, such funds will be invested in money market and other short-term interest bearing obligations.

SELLING STOCKHOLDERS

The following table sets forth certain information regarding beneficial ownership of the Company's Common Stock by the Selling Stockholders as of March 31, 1996 and as adjusted to reflect the sale by Selling Stockholders of Shares offered by them by this Prospectus.

	Common Stock Beneficially Owned Prior to Offering (1)		Common Stock to be Sold	Common Stock Beneficially Owned After Offering	
	Number	Percent		Number	Percent
Johnson & Johnson(5) Development Corporation One Johnson & Johnson Plaza New Brunswick, NJ 08933	2,355,107 (2)	13.1%	432,101	1,923,006 (2)	10.7%
LHC Corporation	356,761	2.0%	356,761	0	-
Dow Corning Corporation	200,000	1.1%	200,000	0	-
BioSource Technologies Inc.	94,000	*	94,000	0	-
Cupertino National Bank	36,674 (3)	*	36,674(3)	0	-
Mees Pierson	10,675	*	10,675	0	-
First BIDCO	50,000(4)	*	50,000(4)	0	-
Gulf Coast Business and Industrial	15,000(4)	*	15,000(4)	0	-
Stanford C. Finney, Jr.	20,000(4)	*	20,000(4)	0	-
Rainbow Trading Partners Ltd.	30,000(4)	*	30,000(4)	0	-
Rainbow Trading Venture Partners L.P.	10,000(4)	*	10,000(4)	0	-
Wilblairco Associates, L.P.	40,000(4)	*	40,000(4)	0	-
TOTAL:	3,218,217	18.1%	1,295,211	1,923,006	10.7%

* Less than 1%.

(1) Applicable percentage of ownership is based on 17,817,541 shares of Common Stock outstanding as of March 31, 1996.

(2) Includes 200,000 shares of Common Stock issuable on exercise of a warrant.

(3) Includes 32,500 shares of Common Stock issuable on exercise of a warrant.

(4) Shares issuable on exercise of a warrant.

(5) Beneficially owns 13.1% of the Company's Common Stock outstanding as of March 31, 1996.

PLAN OF DISTRIBUTION

All or a portion of the Shares of Common Stock offered hereby by the Selling Stockholders may be delivered and/or sold in transactions from time to time on the over-the-counter market at prices prevailing at the time, at prices related to such prevailing prices or at negotiated prices and/or may also be used to cover any short positions previously established. The Selling Stockholders may effect such transactions by selling to or through one or more broker-dealers, and such broker-dealers may receive compensation in the form of underwriting discounts, concessions or commissions from the Selling Stockholders. The Selling Stockholders and any broker-dealers that participate in the distribution may under certain circumstances be deemed to be "underwriters" within the meaning of the Securities Act, and any commissions received by such broker-dealers and any profits realized on the resale of Shares by them may be deemed to be underwriting discounts and commissions under the Securities Act. The Selling Stockholders may agree to indemnify such broker-dealers against certain liabilities, including liabilities under the Securities Act. In addition, the Company has agreed to indemnify the Selling Stockholders with respect to the Shares offered hereby against certain liabilities, including, without limitation, certain liabilities under the Securities Act, or, if such indemnity is unavailable, to contribute toward amounts required to be paid in respect of such liabilities.

Any broker-dealer participating in such transactions as agent may receive commissions from the Selling Stockholders (and, if they act as agent for the purchaser of such Shares, from such purchaser). Broker-dealers may agree with the Selling Stockholders to sell a specified number of Shares at a stipulated price per share, and, to the extent such a broker-dealer is unable to do so acting as agent for the Selling Stockholders, to purchase as principal any unsold Shares at the price required to fulfill the broker-dealer commitment to the Selling Stockholders. Broker-dealers who acquire Shares as principal may thereafter resell such Shares from time to time in transactions (which may involve crosses and block transactions and which may involve sales to and through other broker-dealers, including transactions of the nature described above) in the over-the-counter market, in negotiated transactions or otherwise at market prices prevailing at the time of sale or at negotiated prices, and in connection with such resales may pay to or receive from the purchasers of such Shares commissions computed as described above. To the extent required under the Securities Act, a supplemental prospectus will be filed, disclosing (a) the name of any such broker-dealers, (b) the number of Shares involved, (c) the price at which such Shares are to be sold, (d) the commissions paid or discounts or concessions allowed to such broker-dealers, where applicable, (e) that such broker-dealers did not conduct any investigation to verify the information set out or incorporated by reference in this prospectus, as supplemented, and (f) other facts material to the transaction.

The Selling Stockholders will pay all commissions, transfer taxes, and other expenses associated with the sale of securities by them. The Shares offered hereby are being registered pursuant to contractual obligations of the Company, and the Company has paid the expenses of the preparation of this Prospectus. The Company has not made any underwriting arrangements with respect to the sale of Shares offered hereby on exercise of the Warrants. Upon exercise of Warrants, the Shares will be issued by the Company directly to the persons exercising the Warrants.

DESCRIPTION OF CAPITAL STOCK

As of the date of this Prospectus, the authorized capital stock of the Company consists of 50,000,000 shares of \$0.01 par value Common Stock ("Common Stock") and 2,500,000 shares of \$0.01 par value Preferred Stock ("Preferred Stock").

COMMON STOCK

As of March 31, 1996, there were 17,817,541 shares of Common Stock outstanding held of record by 646 stockholders. The holders of Common Stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders. Subject to preferences that may be applicable to any outstanding Preferred Stock, holders of Common Stock are entitled to receive ratably such dividends as may be declared by the Board of Directors out of funds legally available therefor. In the event of a liquidation, dissolution or winding up of the Company, holders of Common Stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preference of any outstanding Preferred Stock. Holders of Common Stock have no preemptive rights, no

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth various expenses in connection with the sale and distribution of the securities being registered. All of the amounts shown are estimates except for the Securities and Exchange Commission Registration Fee.

Securities and Exchange Commission Registration Fee	\$ 3,604
Accounting Fees	5,000
Legal Fees and Disbursements	10,000
Miscellaneous	543

TOTAL:	\$19,147
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ITEM 15. INDEMNIFICATION OF OFFICERS AND DIRECTORS.

The registrant has the power to indemnify its officers and directors against liability for certain acts pursuant to Section 145 of the General Corporation Law of the State of Delaware. Section B of Article VI of the registrant's Certificate of Incorporation provides:

"(1) Right to Indemnification. Each person who was or is made a party or is threatened to be made a party to or is involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (hereinafter a "proceeding"), by reason of the fact that he or she, or a person of whom he or she is the legal representative, is or was a director or officer, of the Corporation or is or was serving at the request of the Corporation, as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, whether the basis of such proceeding is alleged action in an official capacity as a director, officer, employee or agent or in any other capacity while serving as a director, officer, employee or agent, shall be indemnified and held harmless by the Corporation to the fullest extent authorized by the General Corporation Law of the State of Delaware, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than said law permitted the Corporation to provide prior to such amendment), against all expense, liability and loss (including attorneys' fees, judgments, fines, ERISA excise taxes or penalties and amounts paid or to be paid in settlement) reasonably incurred or suffered by such person in connection therewith and such indemnification shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of his or her heirs, executors and administrators; provided, however, that, the Corporation shall indemnify any such person seeking indemnification in connection with a proceeding (or part thereof) initiated by such person only if such proceeding (or part thereof) was authorized by the board of directors of the Corporation. The right to indemnification conferred in this Section B shall be a contract right and shall include the right to be paid by the Corporation the expenses incurred in defending any such proceeding in advance of its final disposition; provided, however, that, if the General Corporation Law of the State of Delaware requires, the payment of such expenses incurred by a director or officer in his or her capacity as a director or officer (and not in any other capacity in which service was or is rendered by such person while a director or officer, including, without limitation, service to an employee benefit plan) in advance of the final disposition of a proceeding, shall be made only upon delivery to the Corporation of an undertaking, by or on behalf of such director or officer, to repay all amounts so advanced if it shall ultimately be determined that such director or officer is not entitled to be indemnified under this Section or otherwise. The Corporation may, by action of its Board of Directors, provide indemnification to employees and agents of the Corporation with the same scope and effect as the foregoing indemnification of directors and officers.

(2) Non-Exclusivity of Rights. The right to indemnification and the payment of expenses incurred in defending a proceeding in advance of its final disposition conferred in this Section B shall not be exclusive of any other rights which any person may have or hereafter acquire under any statute, provisions of this Certificate of Incorporation, Bylaw, agreement, vote of stockholders or disinterested directors or otherwise.

(3) Insurance. The Corporation may maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the Corporation or another corporation, partnership, joint venture, trust or other enterprise against any such expense, liability or loss, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under Delaware General Corporation Law."

Registrant maintains directors' and officers' liability insurance in the amount of \$5,000,000 which covers civil liabilities. Such insurance helps the Registrant to attract qualified officers and directors, by providing a means for the Company to pay the costs and expenses involved in the event civil litigation is brought against one of the Registrant's officers or directors.

ITEM 16. EXHIBITS.

EXHIBIT -----	DESCRIPTION -----
4.1	Investment Agreement between Registrant and Johnson & Johnson Development Corporation dated May 13, 1994 (1)
4.2	Registration Rights Agreement between Registrant and Dow Corning Corporation dated January 23, 1996 (2)
4.3	Form of Warrant to Purchase Common Stock issued to Cupertino National Bank (2)
4.4	Form of Warrant to Purchase Common Stock issued to other selling stockholders (2)
5	Opinion of Heller Ehrman White & McAuliffe
23.1	Consent of Heller Ehrman White & McAuliffe (filed as part of Exhibit 5)
23.2	Consent of KPMG Peat Marwick LLP

(1) Filed as Exhibit 4.3 to Registration Statement on Form S-3 (No. 33-82562) and incorporated herein by reference.

(2) Previously filed.

ITEM 17. UNDERTAKINGS.

A. The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement;

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

Provided, however, that paragraphs (i) and (ii) shall not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new Registration Statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

B. That, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offering therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

C. Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the provisions described under Item 15 above, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission, such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted against the Registrant by such Director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

(4) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

(5) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(6) To remove from the registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

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 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized in Redwood City, State of California, on the 8th day of April, 1996.

ADVANCED POLYMER SYSTEMS, INC.

By: /S/ MICHAEL P.J. O'CONNELL

Michael P.J. O'Connell
Chief Financial Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the dates indicated.

* ----- John J. Meakem, Jr.	Chairman of the Board and President (Principal Executive Officer)	April 8, 1996
/S/ MICHAEL P.J. O'CONNELL ----- Michael P.J. O'Connell	Chief Financial Officer (Principal Accounting Officer)	April 8, 1996
* ----- Jorge Heller	Director	April 8, 1996
* ----- Helen C. Leong	Director	April 8, 1996
* ----- Peter Riepenhausen	Director	April 8, 1996
* ----- Toby Rosenblatt	Director	April 8, 1996
* ----- Gregory H. Turnbull	Director	April 8, 1996
* ----- Dennis Winger	Director	April 8, 1996
* ----- Carl W. Ehmann	Director	April 8, 1996
/S/ MICHAEL P.J. O'CONNELL ----- *Michael P.J. O'Connell (Attorney-in-fact)	Chief Financial Officer (Principal Accounting Officer)	April 8, 1996

ADVANCED POLYMER SYSTEMS, INC.

EXHIBIT INDEX

EXHIBIT -----	DESCRIPTION -----
4.1	Investment Agreement between Registrant and Johnson & Johnson Development Corporation dated May 13, 1994 (1)
4.2	Registration Rights Agreement between Registrant and Dow Corning Corporation dated January 23, 1996 (2)
4.3	Form of Warrant to Purchase Common Stock issued to Cupertino National Bank (2)
4.4	Form of Warrant to Purchase Common Stock issued to other selling stockholders (2)
5	Opinion of Heller Ehrman White & McAuliffe
23.1	Consent of Heller Ehrman White & McAuliffe (included in Exhibit 5)
23.2	Consent of KPMG Peat Marwick LLP

(1) Filed as Exhibit 4.3 to Registration Statement on Form S-3 (No. 33-82562) and incorporated herein by reference.

(2) Previously filed.

EXHIBIT 5

April 8, 1996

10008-0000

Advanced Polymer Systems, Inc.
3696 Haven Avenue
Redwood City, CA 94036

Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to Advanced Polymer Systems, Inc., a Delaware corporation (the "Company"), in connection with the Registration Statement on Form S-3 (Registration No. 333-759) originally filed with the Securities and Exchange Commission (the "Commission") on February 6, 1996 and as amended by Amendment No. 1 thereto filed with the Commission on April 8, 1996 (collectively, the "Registration Statement") for the purpose of registering under the Securities Act of 1933, as amended, an aggregate of 1,295,211 currently issued and outstanding shares of the Company's Common Stock, \$.01 par value (the "Shares"), all of which are to be sold by certain of the Company's stockholders.

I.

We have assumed the authenticity of all records, documents and instruments submitted to us as originals, the genuineness of all signatures, the legal capacity of natural persons and the conformity to the originals of all records, documents and instruments submitted to us as copies. In rendering our opinion, we have examined the following records, documents, instruments, certificates:

- (a) The Certificate of Incorporation of the Company certified by the Secretary of State of the State of Delaware as of March 15, 1996, and certified to us by the Secretary of the Company as being complete and in full force and effect as of the date of this opinion;
- (b) The Bylaws of the Company certified to us by an officer of the Company as being complete and in full force and effect as of the date of this opinion;
- (c) A Certificate of an officer of the Company:
 - (i) attaching records certified to us as

constituting all records of proceedings and actions of the Board of Directors of the Company and any committees of the Board of Directors relating to the Shares and (ii) certifying as to certain factual matters; and

(d) The Registration Statement.

This opinion is limited to the laws of the State of California, and we disclaim any opinion as to the laws of any other jurisdiction. We further disclaim any opinion as to any other statute, rule, regulation, ordinance, order or other promulgation of any other jurisdiction or any regional or local governmental body or as to any related judicial or administrative opinion. Our opinion to the effect that all issued and outstanding Shares are fully paid and nonassessable is based solely on the certificate identified in item (c) above that the consideration for the Shares recited in the Board of Directors' resolutions authorizing the sale of the Shares was received by the Company.

II.

Based upon the foregoing and our examination of such questions of law as we have deemed necessary or appropriate for the purpose of this opinion, and assuming that: (i) the Registration Statement becomes and remains effective during the period when the Shares are offered and sold and (ii) all applicable securities laws are complied with, it is our opinion that the Shares are legally issued, fully paid and nonassessable.

III.

This opinion is rendered to you in connection with the Registration Statement and is solely for your benefit. This opinion may not be relied upon by you for any other purpose, or relied upon by any other person, firm, corporation or other entity for any purpose, without our prior written consent. We disclaim any obligation to advise you of any developments that come to our attention after the date of this opinion.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement.

Very truly yours,

Heller Ehrman White & McAuliffe

CONSENT OF KPMG PEAT MARWICK LLP

The Board of Directors
Advanced Polymer Systems, Inc.

We consent to the use of our report incorporated herein by reference and to the reference to our firm under the heading "Experts" in the prospectus.

KPMG PEAT MARWICK LLP

San Francisco, California
April 5, 1996