PROSPECTUS



COMMON STOCK PREFERRED STOCK DEBT SECURITIES WARRANTS UNITS

We may from time to time offer common stock, preferred stock, debt securities, warrants and/or Units consisting of any combination of common stock, preferred stock, debt securities and/or warrants. This prospectus describes the general terms of these securities and the general manner in which we will offer them. We will provide the specific terms of these securities in supplements to this prospectus. The prospectus supplements will also describe the specific manner in which we will offer these securities and may also supplement, update or amend information contained in this prospectus. You should carefully read this prospectus and the applicable prospectus supplement, as well as the documents incorporated by reference herein or therein, before you invest in these securities.

We will sell these securities directly to our stockholders or to purchasers or through agents on our behalf or through underwriters or dealers as designated from time to time. If any agents or underwriters are involved in the sale of any of these securities, the applicable prospectus supplement will provide the names of the agents or underwriters and any applicable fees, commissions or discounts.

Investing in our securities involves risks. See "<u>Risk Factors</u>" on page 4 of this prospectus, in the accompanying prospectus supplement and in our periodic reports filed with the Securities and Exchange Commission.

Our common stock is listed on the NASDAQ Global Select Market under the symbol "ENTG." On August 31, 2009 the closing price of our common stock was \$4.00.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

This prospectus may not be used to consummate sales of securities unless it is accompanied by a prospectus supplement.

The date of this prospectus is September 4, 2009.

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ABOUT THIS PROSPECTUS

In this prospectus, "Entegris," "the Company", "we," "us," "our" or "ours" refer to Entegris, Inc. and its consolidated subsidiaries.

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, utilizing a "shelf" registration process. Under this shelf process, we may, from time to time, sell the securities or combinations of the securities described in this prospectus in one or more offerings up to a total dollar amount of \$150,000,000. This prospectus provides you with a general description of the securities that we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will contain more specific information about the terms of those securities. The information in the prospectus supplement (and in any related free writing prospectus that we may authorize to be provided to you) may add, update or change the information contained in this prospectus or in the documents that we have incorporated by reference into this prospectus. Before buying any of the securities being offered under this registration statement, we urge you to carefully read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the heading "Where You Can Find Additional Information."

You should rely only on the information that we have provided or incorporated by reference in this prospectus, any applicable prospectus supplement and any related free writing prospectus that we may authorize to be provided to you. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making offers to sell or solicitations to buy the securities in any jurisdiction in which an offer or solicitation is not authorized or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. You should assume that the information in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and that any information that we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading "Where You Can Find Additional Information."

OUR BUSINESS

The following summary of our business highlights some of the information contained elsewhere in or incorporated by reference into this prospectus. Because this is only a summary, however, it does not contain all of the information that may be important to you. You should carefully read this prospectus, including the documents incorporated by reference, which are described under "Incorporation of Documents by Reference" and "Where You Can Find More Information." You should also carefully consider the matters discussed or referred to in the section entitled "Risk Factors."

Entegris is a worldwide provider of a wide range of products for purifying, protecting and transporting critical materials used in processing and manufacturing in the semiconductor and other high-technology industries. For the semiconductor industry, our products assure the integrity of critical materials and components as they are handled, stored, processed and transported throughout the semiconductor manufacturing process, from raw silicon wafer manufacturing to packaging of completed integrated circuits. For other high technology applications, our products are used to manufacture flat panel displays, high-purity chemicals, photoresists, solar cells, gas lasers, optical and magnetic storage devices, fiber optic cables, fuel cells and critical components for aerospace, glass manufacturing and health applications. We sell our products worldwide through a direct sales force and through distributors in selected regions.

The Company was incorporated in Delaware in March 2005 in connection with a strategic merger of equals transaction between Entegris, Inc., a Minnesota corporation and Mykrolis Corporation, a Delaware corporation. Effective August 6, 2005, Entegris, Inc. and Mykrolis Corporation were each merged into the Company with the Company as the surviving corporation to carry on the combined businesses. At this time the Company's name was also changed to Entegris, Inc. Our principal executive offices are located at 3500 Lyman Boulevard, Chaska MN 55318 and our telephone number at that address is (952) 556-3131. Our website is *www.Entegris.com*. Information contained in, or accessible through, our website does not constitute a part of this prospectus.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully review the risks and uncertainties described in our most recent Annual Report on Form 10-K, as updated by any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K that we have filed or will file with the Securities and Exchange Commission and which are incorporated by reference into this prospectus, as well as the risk factors and other information contained in the applicable prospectus supplement and any related free writing prospectus. In addition, we draw your attention to the Form 8-K filed with the Securities and Exchange Commission on September 2, 2009, which contains updated risk factors. The risks described in these documents are not the only ones we face, but those that we currently consider to be material. There may be other unknown or unpredictable economic, business, competitive, regulatory or other factors that could have material adverse effects on our future results. Past financial performance may not be a reliable indicator of future performance and historical trends should not be used to anticipate results or trends in future periods. Please also read carefully the section below entitled "Special Note Regarding Forward Looking Statements."

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein contain forward-looking statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements represent our management's judgment regarding future events. In many cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "plan," "expect," "anticipate," "estimate," "predict," "intend," "potential" or "continue" or the negative of these terms or other words of similar import, although some forward-looking statements are expressed differently. All statements other than statements of historical fact included in this prospectus and the documents incorporated by reference herein regarding our financial position, business strategy and plans or objectives for future operations are forward-looking statements. Without limiting the broader description of forward-looking statements above, we specifically note that statements

regarding our ability to meet our obligations under the financial covenants of our amended credit facility, the timing, strength and duration of any recovery in the semiconductor and microelectronics markets, our ability to maintain our predicted quarterly EBITDA break-even level, and our ability to successfully integrate the businesses that we have acquired are all forward-looking in nature. We cannot guarantee the accuracy of forward-looking statements, and you should be aware that results and events could differ materially and adversely from those described in the forward-looking statements due to a number of factors, including:

- The strength of any recovery in the semiconductor and other high technology markets in which we participate;
- our ability to secure additional funds;
- competitive factors;
- our ability to maintain the level of our expenses consistent with our internal budgets and forecasts;
- our ability to successfully transfer manufacturing of our microenvironments products from our Chaska Minnesota plant to our Kulim, Malaysia plant in
 connection with the closure of the Chaska plant that has been manufacturing these products;
- changes in our relationships with our suppliers for critical raw materials;
- our ability to enter into and maintain agreements with current and future suppliers of critical raw materials on commercially reasonable terms;
- the demand for securities of materials suppliers to semiconductor and microelectronics companies in general and our common stock in particular;
- · uncertainty regarding our patents and patent rights;
- our ability to resolve certain pending regulatory matters on favorable terms;
- compliance with current or prospective governmental regulation;
- litigation;
- technological change; and
- general economic and market conditions.

You should also consider carefully the statements set forth in the section entitled "Risk Factors" in our latest Annual Report on Form 10-K, as may be updated in our Quarterly Reports on Form 10-Q, which address various factors that could cause results or events to differ from those described in the forwardlooking statements. All subsequent written and oral forward-looking statements attributable to us or to persons acting on our behalf are expressly qualified in their entirety by the applicable cautionary statements. We have no plans to update these forward-looking statements.

RATIO OF EARNINGS TO FIXED CHARGES

If we offer debt securities and/or preference equity securities under this prospectus, then we will, at that time, provide a ratio of earnings to fixed charges and/or ratio of combined fixed charges and preference dividends to earnings, respectively, in the applicable prospectus supplement for such offering.

USE OF PROCEEDS

Except as described in any prospectus supplement or in any related free writing prospectus that we may authorize to be provided to you, we currently expect to use the proceeds from any sale of securities offered hereby to repay existing indebtedness, for working capital and for other general corporate purposes.

The amount and timing of actual expenditures for the purposes set forth above may vary based on several factors and our management will retain broad discretion as to the proper allocation of the proceeds.

THE SECURITIES WE MAY OFFER

The descriptions of the securities contained in this prospectus, together with the applicable prospectus supplements, summarize all the material terms and provisions of the various types of securities that we may offer. We will describe in the applicable prospectus supplement relating to any securities the particular terms of the securities offered by that prospectus supplement. If we indicate in the applicable prospectus supplement, the terms of the securities may differ from the terms we have summarized below. We will also include in the prospectus supplement information, where applicable, about material United States federal income tax considerations relating to the securities, and the securities exchange, if any, on which the securities will be listed.

We may sell from time to time, in one or more offerings:

- common stock;
- preferred stock;
- debt securities;
- warrants; and/or
- units.

This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock and the provisions of our Amended and Restated Certificate of Incorporation is a summary only and is not a complete description.

General

We are authorized to issue 400,000,000 shares of common stock, \$.01 par value, and 5,000,000 shares of preferred stock, \$.01 par value. As of August 31, 2009, there were approximately 113,969,253 shares of common stock issued and outstanding.

Each holder of common stock is entitled to one vote for each share held on all matters to be voted upon by the stockholders and there are no cumulative voting rights. Subject to preferences that may be applicable to any outstanding preferred stock, holders of common stock are entitled to receive ratably the dividends, if any, that are declared from time to time by the board of directors out of funds legally available for that purpose. If there is a liquidation, dissolution or winding up of the Company, the holders of common stock are entitled to share in any assets remaining after the payment of liabilities and the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock. Holders of common stock have no preemptive or conversion rights. All outstanding shares of common stock are fully paid and nonassessable. The powers, preferences and rights of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate in the future.

Stockholder Rights Plan

On July 26, 2005, our Board of Directors adopted a shareholder rights plan (the "Rights Plan") pursuant to which Entegris declared a dividend on August 8, 2005 to its shareholders of record on that date of one preferred share purchase right (a "Right") for each share of Entegris common stock owned on August 8, 2005. Each Right

entitles the holder to purchase one-hundredth of a share of a series of preferred stock at an exercise price of \$50, subject to adjustment as provided in the Rights Plan. The Rights Plan is designed to protect Entegris' shareholders from attempts by others to acquire Entegris on terms or by using tactics that could deny all shareholders the opportunity to realize the full value of their investment. The Rights are attached to the shares of our common stock until certain triggering events specified in the Rights Agreement occur, including, unless approved by our board of directors, an acquisition by a person or group of specified levels of beneficial ownership of our common stock or a tender offer for our common stock. Upon the occurrence of any of these triggering events, the Rights authorize the holders to purchase at the then-current exercise price for the Rights that number of shares of our common stock having a market value equal to twice the exercise price. The Rights are redeemable by us for \$0.01 and will expire on August 8, 2015. One of the events which will trigger the Rights is the acquisition, or commencement of a tender offer, by a person (an Acquiring Person, as defined in the shareholder rights plan), other than Entegris or any of our subsidiaries or employee benefit plans, of 15% or more of the outstanding shares of our common stock. An Acquiring Person may not exercise a Right.

Other Obligations to Issue Capital Stock

We have adopted and maintain equity incentive plans pursuant to which we are authorized to issue stock options, restricted stock, restricted stock units and other types of stock-based compensation to directors, employees, consultants and other persons who provide services to us. Our equity incentive plans provide that in the event of certain change in control transactions, including a merger or consolidation in which we are not the surviving corporation or a reorganization in which more than fifty-percent (50%) of the shares of our common stock entitled to vote are exchanged, all outstanding, unvested equity awards under these plans will vest, and in the case of stock options, will become immediately exercisable. As of August 31, 2009, we had 11,253,016 shares of common stock that were subject to outstanding options and unvested shares of restricted stock, restricted stock units and performance shares that had been issued under these plans. We have reserved an additional 8,805,032 shares of common stock for future issuance under these plans.

Anti-Takeover Provisions

Delaware Law. We are subject to the provisions of Section 203 of the Delaware General Corporation Law. In general, the statute prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination or the transaction by which the person became an interested stockholder is approved by the corporation's board of directors and/or stockholders in a prescribed manner or the person owns at least 85% of the corporation's outstanding voting stock after giving effect to the transaction in which the person became an interested stockholder. The term "business combination" includes mergers, asset sales and other transactions resulting in a financial benefit to the interested stockholder. Subject to certain exceptions, an "interested stockholder" is a person who, together with affiliates and associates, owns, or within three years did own, 15% or more of the corporation's voting stock. A Delaware corporation may "opt out" from the application of Section 203 through a provision in its certificate of incorporation or by-laws. We have not "opted out" from the application of Section 203.

Certificate of Incorporation and By Law Provisions. Our Amended and Restated Certificate of Incorporation, as amended, and Amended By-Laws include the following provisions, among others, that could discourage potential acquisition proposals and could delay or prevent a change of control:

- the number of directors that constitutes the whole board of directors shall be fixed exclusively by one or more resolutions adopted by the board of directors;
- vacancies on our board of directors, including those resulting from an increase in the number of directors, shall be filled only by the affirmative vote of a
 majority of the directors then in office, even though less than a quorum of the board of directors, and not by the stockholders;

- a stockholder's notice of the stockholder's intent to bring business before an annual meeting or to nominate a person for election to the board of directors must be received by us within strict guidelines which may make it more difficult for stockholders to bring items before the meetings; and
- our Amended and Restated Certificate of Incorporation, as amended, and our Amended Bylaws do not provide for cumulative voting in the election of directors.

In addition, our Amended and Restated Certificate of Incorporation authorizes shares of undesignated preferred stock, which makes it possible for the board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change control of Entegris.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Wells Fargo Bank, N.A. Their address is 161 N. Concord Exchange, South St. Paul, MN 55075 and their telephone number (651) 450-4027.

DESCRIPTION OF PREFERRED STOCK

We are authorized to issue, without stockholder approval, up to 5,000,000 shares of preferred stock, \$0.01 par value per share. As of the date of this prospectus we did not have any outstanding shares of preferred stock. Our board of directors is authorized to issue the preferred stock in one or more series and to fix and designate the rights, preferences, privileges and restrictions of the preferred stock, including:

- dividend rights;
- conversion rights;
- voting rights;
- redemption rights and terms of redemption; and
- liquidation preferences.

Our board may fix the number of shares constituting any series and the designations of these series. The rights, preferences, privileges and restrictions of the preferred stock of each series will be fixed by a certificate of designation relating to each series. The prospectus supplement relating to each series will specify the terms of the preferred stock, including:

- the maximum number of shares in the series and the distinctive designation;
- the terms on which dividends will be paid, if any;
- the terms on which the shares may be redeemed, if at all;
- the liquidation preference, if any;
- the terms of any retirement or sinking fund for the purchase or redemption of the shares of the series;
- the terms and conditions, if any, on which the shares of the series will be convertible into, or exchangeable for, shares of any other class or classes of capital stock;
- the voting rights, if any, on the shares of the series; and
- any or all other preferences and relative, participating, operational or other special rights or qualifications, limitations or restrictions of the shares.

We will describe the specific terms of a particular series of preferred stock in the prospectus supplement relating to that series. The description of preferred stock above and the description of the terms of a particular

series of preferred stock in the prospectus supplement is a summary only and is not a complete description. The prospectus supplement will contain a description of U.S. federal income tax consequences relating to the preferred stock.

Our issuance of preferred stock may have the effect of delaying or preventing a change in control. Our issuance of preferred stock could decrease the amount of earnings and assets available for distribution to the holders of common stock or could adversely affect the rights and powers, including voting rights, of the holders of common stock. The issuance of preferred stock could have the effect of decreasing the market price of our common stock.

DESCRIPTION OF DEBT SECURITIES

We may issue debt securities in one or more distinct series. This section summarizes the terms of the debt securities that are common to all series. Most of the financial terms and other specific terms of any series of debt securities that we offer will be described in a prospectus supplement to be attached to the front of this prospectus. Since the terms of specific debt securities may differ from the general information we have provided below, if any information contained in a prospectus supplement contradicts the information below, you should rely on information in the prospectus supplement.

As required by federal law that applies to all bonds and notes of companies that are publicly offered, the debt securities are governed by a document called an "indenture". An indenture is a contract between us and a financial institution acting as trustee on behalf of the holders of the debt securities. The trustee has two main roles. First, the trustee can enforce the rights of holders of the debt securities against us if we default. There are some limitations on the extent to which the trustee acts on behalf of holders of the debt securities, described later under "—Events of Default." Second, the trustee performs certain administrative duties for us.

The debt securities will be either senior debt securities or subordinated debt securities. We will issue the senior debt securities under a senior indenture between us and a trustee. We will issue the subordinated debt securities under a subordinated indenture between us and the same or another trustee. The senior indenture and the subordinated indenture together with any supplemental indentures amending either of them are collectively referred to in this prospectus as the indenture, and each of the trustee under the senior indenture and the trustee under the subordinated indenture are referred to in this prospectus as the trustee. The debt securities will be direct unsecured obligations of Entegris.

Because this section is a summary, it does not describe every aspect of the debt securities and the indenture. We urge you to read the indenture because it, and not this description, defines your rights as a holder of debt securities. For example, in this section, we use capitalized words to signify terms that are specifically defined in the indenture. Some of the definitions are repeated in this prospectus, but for the rest you will need to read the indenture. We have filed the form of the indenture as an exhibit to the registration statement that we have filed with the SEC. See "Where You Can Find More Information," below, for information on how to obtain a copy of the indenture.

General

Each series of debt securities, unless specified otherwise in the prospectus supplement, will be unsecured obligations of Entegris. Any senior unsecured debt securities that we issue will rank equally with all of our other unsecured and unsubordinated indebtedness. Any subordinated debt securities that we issue will be expressly subordinated in right of payment to the prior payment in full of our senior indebtedness. In addition, unless otherwise specified in the applicable prospectus supplement the debt securities will be structurally subordinated to all existing and future liabilities, including trade payables, of our subsidiaries and the claims of creditors of those subsidiaries, including trade creditors, will have priority as to the assets and cash flows of those subsidiaries.

Any debt securities proposed to be sold under this prospectus and under the attached prospectus supplement ("offered debt securities") and any debt securities issuable upon conversion or exchange of other offered securities ("underlying debt securities"), as well as other unsecured debt securities, may be issued under the indenture in one or more series.

You should read the prospectus supplement for the terms of the offered debt securities, including the following:

• the title of the debt securities and whether the debt securities will be senior debt securities or subordinated debt securities of Entegris;

- the total principal amount of the debt securities and any limit on the total principal amount of debt securities of the series;
- the price or prices at which Entegris will offer the debt securities;
- if not the entire principal amount of the debt securities, the portion of the principal amount payable upon acceleration of the maturity of the debt securities or how this portion will be determined;
- the date or dates when the principal of the debt securities will be payable, or how the date or dates will be determined or extended;
- the interest rate or rates, which may be fixed or variable, that the debt securities will bear, if any, or how the rate or rates will be determined, the date or dates from which any interest will accrue or how the date or dates will be determined, the interest payment dates, any record dates for these payments and the basis upon which interest will be calculated, if other than that of a 360-day year of twelve 30-day months;
- any optional redemption provisions;
- any sinking fund or other provisions that would obligate us to repurchase or otherwise redeem the debt securities;
- if other than U.S. dollars, the currency or currencies of the debt securities;
- whether the amount of payments of principal, premium or interest, if any, on the debt securities will be determined with reference to an index, formula or other method, which could be based on one or more currencies, commodities, equity indices or other indices, and how these amounts will be determined;
- the place or places, if any, other than or in addition to the city of New York, of payment, transfer, conversion and/or exchange of the debt securities;
- if the denominations in which time offered debt securities will be issued are other than denominations of \$1,000 or any integral multiple of \$1,000;
- the applicability of defeasance provisions of the indenture and any provisions in modification of, in addition to, or in lieu of, any of these provisions;
- · any provisions granting special rights to the holders of the debt securities upon the occurrence of specified events;
- any changes or additions to the events of default or covenants contained in the indenture;
- whether the debt securities will be convertible into or exchangeable for any other securities and the applicable terms and conditions;
- subordination provisions, if any, that will apply, to the extent different from those set forth below;
- the form of note or other instrument representing the debt if not issued in book entry form; and
- any other terms of the debt securities.

Covenants

The indenture may include with respect to any particular series of debt securities covenants including, without limitation, covenants restricting or limiting:

- the incurrence of additional debt, including guarantees, by us and our subsidiaries;
- the making of various payments by us and our subsidiaries;
- our business activities and those of our subsidiaries;



- the issuance of other securities by our subsidiaries;
- asset dispositions;
- sale-leaseback transactions;
- transactions with affiliates;
- a change of control;
- the incurrence of liens; and
- mergers and consolidations involving us and our subsidiaries.

For purposes of this prospectus, any reference to the payment of principal of or premium or interest, if any, on debt securities will include additional amounts if required by the terms of the debt securities, subject to the maximum offering amount under this prospectus.

The indenture does not limit the amount of debt securities that may be issued thereunder from time to time. The indenture also provides that there may be more than one trustee thereunder, with respect to one or more different series of indenture securities. See "—Resignation of Trustee," below. At a time when two or more trustees are acting under the indenture, each with respect to only certain series, the term "indenture securities" means the one or more series of debt securities with respect to which each respective trustee is acting. In the event that there is more than one trustee under the indenture, the powers and trust obligations of each trustee described in this prospectus will extend only to the one or more series of indenture securities for which it is trustee. If two or more trustees are acting under the indenture, then the indenture securities for which each trustee is acting would be treated as if issued under separate indentures.

We have the ability to issue debt securities with terms different from those of debt securities previously issued and, without the consent of the holders thereof to reopen a previous issue of a series of debt securities and issue additional debt securities of that series unless the reopening was restricted when that series was created.

Methods of Calculating and Paying Interest on our Debt Securities

Each series of our debt securities will bear interest at a fixed or variable rate per annum shown on the front cover of the prospectus supplement under which that series is issued.

Provisions Relating Only to the Senior Debt Securities

The senior debt securities will rank equally in right of payment with all of our other senior and unsubordinated debt and senior in right of payment to any of our subordinated debt, including the subordinated debt securities. The senior debt securities will be effectively subordinated to all of our secured debt and to all debt, including trade debt, of our subsidiaries. We will disclose the amount of our secured debt in the prospectus supplement.

Provisions Relating Only to the Subordinated Debt Securities

The subordinated debt securities will rank junior in right of payment to all of our senior indebtedness. Senior indebtedness will be defined to include all notes or other evidences of debt not expressed to be subordinate or junior in right of payment to any of our other debt. The debt will be structurally subordinated to all debt, including trade debt, of our subsidiaries.

If the offered securities are subordinated debt securities, the indenture may provide that no cash payment of principal, interest and any premium on the subordinated debt securities may be made:

- if we fail to pay when due any amounts on any senior indebtedness;.
- if our property or we are involved in any voluntary or involuntary liquidation or bankruptcy; and
- in other instances specified in the indenture.

Conversion or Exchange Rights

If any series of our debt securities are convertible or exchangeable, the applicable prospectus supplement will specify:

- the type of securities into which it may be converted or exchanged;
- the conversion price or exchange ratio, or its method of calculation; and
- · how the conversion price or exchange ratio may be adjusted if our debt securities are redeemed.

Events of Default

Unless otherwise specified in the applicable prospectus supplement, the following will be events of default with respect to any series of debt securities:

- default for 30 days in the payment when due of interest on the debt securities;
- default in payment when due of the principal of or any premium on the debt securities;
- · default in the performance of or breach of various covenants after applicable notice and/or grace period; and
- various events of bankruptcy or insolvency with respect to the Company.

The applicable prospectus supplement will describe any additional events of default.

If an event of default occurs with respect to debt securities of a series then outstanding and is continuing, then the trustee or the holders of not less than 25% in principal amount of the debt securities of that series then outstanding, by a notice in writing to the Company (and to the trustee if given by the holders), may, and the trustee at the request of such holders shall, declare the principal amount (or, if the debt securities of that series are original issue discount securities, such portion of the principal amount as may be specified in the terms of that series) of, premium, if any, and accrued interest on all of the debt securities of that series to be due and payable immediately, and the same (or specified portion thereof) shall become immediately due and payable. A declaration of default under the indenture or under other payment obligations could give rise to cross-defaults and acceleration with respect to the debt securities or such other payment obligations.

At any time after a declaration of acceleration with respect to debt securities of any series (or of all series, as the case may be) has been made and before a judgment or decree for payment of the money due has been obtained by the trustee as provided in the indenture, the holders of a majority in principal amount of the debt securities of that series (or of all series, as the case may be) then outstanding, by written notice to Entegris and the trustee, may rescind such declaration and its consequences under the circumstances specified in the applicable debenture.

The indenture will provide that no such rescission shall affect any subsequent default or impair any right consequent thereon.

With respect to the debt securities of any series, the holders of not less than a majority in principal amount of the debt securities of such series then outstanding shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, *provided* that:

- such direction shall not be in conflict with any rule of law or with the indenture;
- the trustee may take any other action deemed proper by the trustee which is not inconsistent with such direction; and
- the trustee need not take any action which might involve it in personal liability or be unjustly prejudicial to the holders of debt securities of such series not consenting to the action.



No holder of any debt security of any series or any related coupons shall have any right to institute any proceeding, judicial or otherwise, with respect to the indenture, or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless:

- the holder has previously given written notice to the trustee of a continuing event of default with respect to the debt securities of that series;
- the holders of not less than 25% in principal amount of the debt securities of that series then outstanding shall have made written request to the trustee to institute proceedings in respect of the event of default in its own name as trustee under the indenture;
- such holder or holders have offered to the trustee indemnity reasonably satisfactory to the trustee against the costs, expenses and liabilities to be incurred in compliance with such request;
- the trustee for 60 days after its receipt of such notice, request and offer of indemnity has failed to institute any such proceeding; and
- no direction inconsistent with such written request has been given to the trustee during such 60-day period by the holders of a majority or more in
 principal amount of the debt securities of that series then outstanding.

However, no holder of a debt security has the right under the indenture to affect, disturb or prejudice the rights of any other holders of debt securities of the same series, or to obtain or to seek to obtain priority or preference over any other of such holders or to enforce any right under the indenture, except in the manner provided in the indenture and for the equal and ratable benefit of all holders of debt securities of the same series.

Every year we will be required to deliver to the trustee a certificate as to our performance of our obligations under the indenture and as to any defaults.

Mergers, Consolidations and Certain Sale of Assets

We may not:

- consolidate with or merge into any other person or entity or permit any other person or entity to consolidate with or merge into us in a transaction in which we are not the surviving entity, or
- transfer, lease or dispose of all or substantially all of our assets to any other person or entity unless:
 - 1. the resulting, surviving or transferee entity shall be a corporation organized and existing under the laws of the United States or any state thereof and such resulting, surviving or transferee entity shall expressly assume, by supplemental indenture, executed and delivered in form satisfactory to the trustee, all of our obligations under the debt securities and the indenture;
 - 2. immediately after giving effect to such transaction (and treating any indebtedness which becomes an obligation of the resulting, surviving or transferee entity as a result of such transaction as having been incurred by such entity at the time of such transaction), no default or event of default would occur or be continuing; and
 - 3. we shall have delivered to the trustee an officers' certificate and an opinion of counsel, each stating that such consolidation, merger or transfer and such supplemental indenture (if any) comply with the indenture.

Modification and Waiver

The indenture will provide that Entegris and the trustee may amend or supplement the indenture or the debt securities without notice to or the consent of any holder for clarification, corrections, and legal compliance purposes, including as follows:

- to cure any ambiguity, defect or inconsistency;
- to provide for uncertificated debt securities in addition to or in place of certificated debt securities;

- to make any change that does not adversely affect the interests thereunder of any holder;
- to qualify the indenture under the Trust Indenture Act of 1939 as amended or to comply with the requirements of the Securities and Exchange Commission in order to maintain the qualification of the indenture under the Trust Indenture Act.
- to evidence the succession of another person to Entegris and that person's assumption of the Company's covenants;
- to add to Entegris's covenants;
- to add any additional events of default;
- to secure the debt securities;
- to establish the form or terms of debt securities;
- to evidence the appointment of a successor trustee under the indenture;
- · to close the indenture with respect to authentication and delivery of additional series of debt securities; or
- to supplement the indenture in order to permit the defeasance and discharge of any series of debt securities.

The indenture will provide that Entegris and the trustee may make modifications and amendments to the indenture, and waive past defaults, with the consent of the holders of not less than a majority in aggregate principal amount at maturity of the outstanding debt securities in a series; provided, however, that no such modification or amendment may, without the consent of each holder affected thereby,

- change the stated maturity of the principal of, or any installment of interest on, any debt security;
- reduce the principal amount of, or premium, if any, or interest on, any debt security;
- reduce the amount of a debt security's principal that would be due and payable upon a declaration of acceleration, following a default;
- change the place of payment of, the currency of payment of principal of, or premium, if any, or interest on, any debt security;
- impair the right to institute suit for the enforcement of any payment on or after the stated maturity (or, in the case of a redemption, on or after the redemption date) of any debt security;
- adversely affect any right to convert or exchange any debt security that is convertible or exchangeable;
- reduce the stated percentage of outstanding debt securities the consent of whose holders is necessary to modify, or amend the indenture or waive a past default.

Governing Law

Any issued debt securities and the indenture will be governed by the laws of the state of New York, except to the extent the Trust Indenture Act is applicable.

Concerning the Trustee

The indenture will provide that, except during the continuance of an event of default or default, the trustee will not be liable, except for the performance of such duties as are specifically set forth in such indenture. If an event of default has occurred and is continuing, the trustee will use the same degree of care and skill in its exercise as a prudent person would exercise under the circumstances in the conduct of such person's own affairs.

The indenture and provisions of the Trust Indenture Act incorporated by reference in the indenture contain limitations on the rights of the trustee, should it become our creditor, to obtain payment of claims in certain cases or to realize on certain property received by it in respect of any such claims, as security or otherwise. The trustee is permitted to engage in other transactions; provided, however, that if it acquires any conflicting interest, it must eliminate such conflict or resign.

Defeasance

The following provisions will be applicable to each series of debt securities unless we state in the applicable prospectus supplement that the provisions of covenant defeasance and full defeasance will not be applicable to that series.

The indenture will provide that we will be deemed to have paid and will be discharged from any and all obligations in respect of any issued series of debt securities, and the provisions of the indenture or will be released from our obligations to comply with covenants relating to those debt securities as described above or in the applicable prospectus supplement, (which may include obligations concerning subordination of our subordinated debt securities) if, among other things:

- We have irrevocably deposited with the trustee, in trust, money and/or U.S. Government obligations (as defined in the indenture) that through the payment of interest and principal in respect of those monies and/or U.S. Government obligations in accordance with their terms, will provide money in an amount sufficient to pay the principal of, premium, if any, and interest, if any, on the series of debt securities on the stated maturity of such payments and any applicable sinking fund or analogous payments in accordance with the terms of the indenture and the debt securities;
- Such defeasance shall not result in a breach, or constitute a default, under the indenture or any other material agreement of Entegris;
- We have delivered to the trustee either (i) an opinion of counsel to the effect that holders will not recognize additional income, gain or loss for U.S. federal income tax purposes as a result of Entegris's exercise of the defeasance or covenant defeasance, or (ii) a ruling directed to the trustee received from the Internal Revenue Service to the same effect as the aforementioned opinion of counsel;
- Entegris has delivered to the trustee an officer's certificate and an opinion of counsel, each stating that all the conditions precedent to full defeasance have been complied with.

In the event we exercise our option to omit compliance with certain covenants and provisions of the indenture with respect to a series of debt securities and the debt securities are declared due and payable because of the occurrence of an event of default that remains applicable, the amount of money and/or U.S. Government obligations on deposit with the trustee will be sufficient to pay amounts due on the debt securities at the time of the acceleration resulting from such event of default, however, we will remain liable for such payments.

We cannot defease our obligations to register the transfer or exchange of our debt securities; to replace our debt securities that have been stolen, lost or mutilated; to maintain paying agencies; or to hold fund for payment in trust. We may not defease our obligations if there is a continuing event of default on securities issued under the applicable indenture, or if depositing amounts into trust would cause the trustee to have conflicting interests with respect to other of our securities.

Resignation of Trustee

Each trustee may resign or be removed with respect to one or more series of indenture securities provided that a successor trustee is appointed to act with respect to these series. In the event that two or more persons are acting as trustee with respect to different series of indenture securities under one of the indentures, each of the trustees will be a trustee of a trust separate and apart from the trust administered by any other trustee.

Payment and Paying Agent

Unless specified otherwise in a prospectus supplement, in the event certificated registered debt securities are issued, the holders of certificated registered debt securities will be able to receive payments of principal and of interest on their debt securities at the office of the paying agent. All payments of interest may be received at the offices of such paying agent upon presentation of certificated debt securities and all payments of principal may be received at such offices upon surrender of the debt securities. We also have the option of mailing checks or making wire transfers to the registered holders of the debt securities. Unless specified otherwise in a prospectus supplement, we will maintain a paying agent for the debt securities in the city of New York at all times that payments are to be made in respect of the debt securities and, if and so long as the debt securities remain outstanding.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. If we indicate in the prospectus supplement, the terms of any warrants offered under that prospectus supplement may differ from the terms described below. Specific warrant agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement which includes this prospectus.

General

We may issue warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series. We may issue warrants independently or together with common stock, preferred stock and/or debt securities, and the warrants may be attached to or separate from these securities.

We will evidence each series of warrants by warrant certificates that we will issue under a separate agreement. We will enter into the warrant agreement with a warrant agent. We will indicate the name and address of the warrant agent in the applicable prospectus supplement relating to a particular series of warrants.

We will describe in the applicable prospectus supplement the terms of the series of warrants, including:

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one warrant and the price at, and currency in which, this principal amount of debt securities may be purchased upon such exercise;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreement and warrants may be modified;
- federal income tax consequences of holding or exercising the warrants;
- · the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including:

- in the case of warrants to purchase debt securities, the right to receive payments of principal of, or premium, if any, or interest on, the debt securities
 purchasable upon exercise or to enforce covenants in the applicable indenture; or
- in the case of warrants to purchase common stock or preferred stock, the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to 5:00 P.M. New York City time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender securities as all or part of the exercise price for warrants.

Enforceability of Rights By Holders of Warrants

Each warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

DESCRIPTION OF UNITS

We may issue Units comprised of one or more common stock, preferred stock, warrants and debt securities in any combination. Each Unit will be issued so that the holder of the Unit is also the holder of each security included in the Unit. Thus, the holder of a Unit will have the rights and obligations of a holder of each included security. The Unit agreement under which a Unit is issued may provide that the securities included in the Unit may not be held or transferred separately, at any time or at any time before a specified date.

This section outlines some of the provisions of the Units and the Unit agreements. This information is a summary only and is not a complete description of the Units or the Unit agreements. The specific terms of any series of Units will be described in a prospectus supplement. If so described in a particular prospectus supplement, the specific terms of any series of Units may differ from the general description of terms presented below.

The applicable prospectus supplement will contain, where appropriate, the following terms of and other information relating to the Units:

- the designation and terms of the Units and of the securities comprising the Units, including whether and under what circumstances those securities may be held or transferred separately;
- any applicable material U.S. Federal income tax consequences;
- · any provisions of the governing Unit agreement; and
- any provisions for the issuance, payment, settlement, transfer or exchange of the Units or of the securities comprising the Units.

The provisions described in this section, as well as those described under "Description of Capital Stock", "Description of Preferred Stock", "Description of Debt Securities" and "Description of Warrants" will apply to each Unit (as applicable) and to any common stock, preferred stock, debt security or warrant included in each Unit.

LEGAL OWNERSHIP OF SECURITIES

We can issue securities in registered form or in the form of one or more global securities. We describe global securities in greater detail below. We refer to those persons who have securities registered in their own names on the books that we or any applicable trustee maintain for this purpose as the "holders" of those securities. These persons are the legal holders of the securities. We refer to those persons who, indirectly through others, own beneficial interests in securities that are not registered in their own names, as "indirect holders" of those securities. As we discuss below, indirect holders are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect holders.

Book-Entry Holders

We may issue securities in book-entry form only, as we will specify in the applicable prospectus supplement. This means securities may be represented by one or more global securities registered in the name of a financial institution that holds them as depositary on behalf of other financial institutions that participate in the depositary's book-entry system. These participating institutions, which are referred to as participants, in turn, hold beneficial interests in the securities on behalf of themselves or their customers.

Only the person in whose name a security is registered is recognized as the holder of that security. Securities issued in global form will be registered in the name of the depositary or its participants. Consequently, for securities issued in global form, we will recognize only the depositary as the holder of the securities, and we will make all payments on the securities to the depositary. The depositary passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depositary and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors in a book-entry security will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depositary's book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect holders, and not holders, of the securities.

Street Name Holders

We may terminate a global security or issue securities in non-global form. In these cases, investors may choose to hold their securities in their own names or in "street name." Securities held by an investor in street

name would be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he or she maintains at that institution.

For securities held in street name, we will recognize only the intermediary banks, brokers and other financial institutions in whose names the securities are registered as the holders of those securities, and we will make all payments on those securities to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect holders, not holders, of those securities.

Legal Holders

Our obligations, as well as the obligations of any applicable trustee and of any third parties employed by us or a trustee, run only to the legal holders of the securities. We do not have obligations to investors who hold beneficial interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect holder of a security or has no choice because we are issuing the securities only in global form.

For example, once we make a payment or give a notice to the holder, we have no further responsibility for the payment or notice even if that holder is required, under agreements with depositary participants or customers or by law, to pass it along to the indirect holders but does not do so. Similarly, we may want to obtain the approval of the holders to amend an indenture, to relieve us of the consequences of a default or of our obligation to comply with a particular provision of the indenture or for other purposes. In such an event, we would seek approval only from the holders, and not the indirect holders, of the securities. Whether and how the holders contact the indirect holders is up to the holders.

Special Considerations for Indirect Holders

If you hold securities through a bank, broker or other financial institution, either in book-entry form or in street name, you should check with your own institution to find out:

- · how it handles securities payments and notices;
- whether it imposes fees or charges;
- how it would handle a request for the holders' consent, if ever required;
- whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;
- how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and
- if the securities are in book-entry form, how the depositary's rules and procedures will affect these matters.

Global Securities

A global security is a security held by a depositary which represents one or any other number of individual securities. Generally, all securities represented by the same global securities will have the same terms.

Each security issued in book-entry form will be represented by a global security that we deposit with and register in the name of a financial institution or its nominee that we select. The financial institution that we select for this purpose is called the depositary. Unless we specify otherwise in the applicable prospectus supplement, The Depository Trust Company, New York, New York, known as DTC, will be the depositary for all securities issued in book-entry form.

A global security may not be transferred to or registered in the name of anyone other than the depositary, its nominee or a successor depositary, unless special termination situations arise. We describe those situations below under "—Special Situations When a Global Security Will Be Terminated." As a result of these arrangements, the depositary, or its nominee, will be the sole registered owner and holder of all securities represented by a global security, and investors will be permitted to own only beneficial interests in a global security. Beneficial interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depositary or with another institution that does. Thus, an investor whose security is represented by a global security will not be a holder of the security, but only an indirect holder of a beneficial interest in the global security.

If the prospectus supplement for a particular security indicates that the security will be issued in global form only, then the security will be represented by a global security at all times unless and until the global security is terminated. If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

Special Considerations for Global Securities

As an indirect holder, an investor's rights relating to a global security will be governed by the account rules of the investor's financial institution and of the depositary, as well as general laws relating to securities transfers. We do not recognize an indirect holder as a holder of securities and instead deal only with the depositary that holds the global security.

If securities are issued only in the form of a global security, an investor should be aware of the following:

- An investor cannot cause the securities to be registered in his or her name, and cannot obtain non-global certificates for his or her interest in the securities, except in the special situations we describe below;
- An investor will be an indirect holder and must look to his or her own bank or broker for payments on the securities and protection of his or her legal rights relating to the securities, as we describe under "Legal Ownership of Securities" above;
- An investor may not be able to sell interests in the securities to some insurance companies and to other institutions that are required by law to own their securities in non-book-entry form;
- An investor may not be able to pledge his or her interest in a global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;
- The depositary's policies, which may change from time to time, will govern payments, transfers, exchanges and other matters relating to an investor's
 interest in a global security. We and any applicable trustee have no responsibility for any aspect of the depositary's actions or for its records of
 ownership interests in a global security. We and the trustee also do not supervise the depositary in any way;
- The depositary may, and we understand that DTC will, require that those who purchase and sell interests in a global security within its book-entry system use immediately available funds, and your broker or bank may require you to do so as well; and
- Financial institutions that participate in the depositary's book-entry system, and through which an investor holds its interest in a global security, may also have their own policies affecting payments, notices and other matters relating to the securities. There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the actions of any of those intermediaries.

Special Situations When a Global Security Will be Terminated

In a few special situations described below, the global security will terminate and interests in it will be exchanged for physical certificates representing those interests. After that exchange, the choice of whether to hold securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in securities transferred to their own name, so that they will be direct holders. We have described the rights of holders and street name investors above.

The global security will terminate when the following special situations occur:

- if the depositary notifies us that it is unwilling, unable or no longer qualified to continue as depositary for that global security and we do not appoint
 another institution to act as depositary within 90 days;
- if we notify any applicable trustee that we wish to terminate that global security; or
- if an event of default has occurred with regard to securities represented by that global security and has not been cured or waived.

The prospectus supplement may also list additional situations for terminating a global security that would apply only to the particular series of securities covered by the prospectus supplement. When a global security terminates, the depositary, and not we or any applicable trustee, is responsible for deciding the names of the institutions that will be the initial direct holders.

PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities to or through underwriters or dealers, through agents, or directly to one or more purchasers. We may distribute securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

A prospectus supplement or supplements will describe the terms of the offering of the securities, including:

- the name or names of the underwriters, if any;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;
- any public offering price;
- · any discounts or concessions allowed or reallowed or paid to dealers; and
- any securities exchange or market on which the securities may be listed.

Only underwriters named in the prospectus supplement will be underwriters of the securities offered by the prospectus supplement. THIS PROSPECTUS MAY NOT BE USED TO CONSUMMATE A SALE OF SECURITIES UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement, other than securities covered by any over-allotment option. Any public offering price and any discounts or concessions allowed or reallowed or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against civil liabilities, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

All securities we may offer, other than common stock, will be new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriter may engage in over-allotment, stabilizing transactions, short-covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum price. Syndicate-covering or other short-covering transactions involve purchases of the securities, either through exercise of the over-allotment option or in the open market after the distribution is completed, to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

Any underwriters that are qualified market makers on the NASDAQ Global Market may engage in passive market making transactions in the common stock on the NASDAQ Global Market in accordance with Regulation M under the Exchange Act, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the common stock. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

In compliance with guidelines of the Financial Industry Regulatory Authority, or FINRA, the maximum consideration or discount to be received by any FINRA member or independent broker dealer may not exceed 8% of the aggregate amount of the securities offered pursuant to this prospectus and any applicable prospectus supplement.

LEGAL MATTERS

The validity of the issuance of the securities offered hereby will be passed upon for us by Ropes & Gray LLP, Boston, Massachusetts. The validity of any securities will be passed upon for any underwriters or agents by counsel that we will name in the applicable prospectus supplement.

EXPERTS

The consolidated financial statements of Entegris, Inc. as of December 31, 2008 and 2007 and for each of the years in the three-year period ended December 31, 2008, and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2008, have been incorporated by reference herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing. The audit report on the effectiveness of internal control over financial reporting as of December 31, 2008, contains an explanatory paragraph that states the scope of management's assessment of internal control over financial reporting as of December 31, 2008 includes all of the subsidiaries of Entegris, Inc. except for Poco Graphite, Inc., which was acquired on August 11, 2008. The consolidated net sales of Entegris, Inc. and subsidiaries for the year ended December 31, 2008 were \$555 million of which Poco Graphite, Inc. represented \$23 million. The consolidated total assets of Entegris, Inc. and subsidiaries as of December 31, 2008 were \$598 million of which Poco Graphite, Inc. represented \$113 million. Our audit of internal control over financial reporting of Poco Graphite, Inc. The audit report covering the December 31, 2008 consolidated financial statements, refers to the Company's change in method of accounting in 2008 due to the adoption of Statement of Financial Accounting Standards No. 157, *Fair Value Measurements*, and for accounting for uncertainty in income taxes in 2007 due to the adoption of Financial Accounting Standards Board Interpretation No. 48, *Accounting for Uncertainty in Income Taxes — an interpretation of FASB Statement No. 109*.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. We also filed a registration statement on Form S-3, including exhibits, under the Securities Act of 1933 with respect to the securities offered by this prospectus. This prospectus is a part of the registration statement, but does not contain all of the information included in the registration statement or the exhibits. You may read and copy the registration statement and any other document that we file at the SEC's public reference room at 100 F Street, N.E., Washington D.C. 20549. You can call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference room. You can also find our public filings with the SEC on the internet at a web site maintained by the SEC located at http://www.sec.gov.

INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with them. Incorporation by reference allows us to disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this prospectus, and information that we file later

with the SEC will automatically update and supersede this information. We filed a registration statement on Form S-3 under the Securities Act of 1933, as amended, with the SEC with respect to the securities being offered pursuant to this prospectus. This prospectus omits certain information contained in the registration statement, as permitted by the SEC. You should refer to the registration statement, including the exhibits, for further information about us and the securities being offered pursuant to this prospectus. Statements in this prospectus regarding the provisions of certain documents filed with, or incorporated by reference in, the registration statement are not necessarily complete and each statement is qualified in all respects by that reference. Copies of all or any part of the registration statement, including the documents incorporated by reference or the exhibits, may be obtained upon payment of the prescribed rates at the offices of the SEC listed above in "Where You Can Find More Information." The documents we are incorporating by reference are:

- (a) Our Annual Report on Form 10-K for the fiscal year ended December 31, 2008, filed on March 2, 2009.
- (b) Our Definitive Proxy Statement filed on April 4, 2009;
- (c) Our Quarterly Reports on Form 10-Q filed for the fiscal quarter ended March 28, 2009, filed on May 6, 2009 and the fiscal quarter ended June 27, 2009, filed on July 24, 2009;
- (d) Our Current Reports on Form 8-K and 8-K/A filed on March 4, 2009, July 23, 2009, August 11, 2009, August 12, 2009, August 17, 2009 and September 2, 2009;
- (e) The description of our common stock contained in our Registration Statement on Form 8-A filed on August 6, 2005; and
- (f) The description of our Rights Agreement and Series A Junior Participating Preferred Stock contained in our Current Report on Form 8-K filed on August 19, 2005.

In addition, all documents subsequently filed by us pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, before the date our offering is terminated or complete are deemed to be incorporated by reference into, and to be a part of, this prospectus.

You may request a copy of these filings, at no cost, by writing to or telephoning us at the following address: Corporate Secretary, Entegris, Inc., 129 Concord Road, Billerica, MA 01821 (978) 436-6608.

Any statement contained in this prospectus or in a document incorporated or deemed to be incorporated by reference into this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or any other subsequently filed document that is deemed to be incorporated by reference into this prospectus modifies or supersedes the statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

You should rely only on information contained in, or incorporated by reference into, this prospectus and any prospectus supplement. We have not authorized anyone to provide you with information different from that contained in this prospectus or incorporated by reference in this prospectus. We are not making offers to sell the securities in any jurisdiction in which such an offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make such offer or solicitation.