

ENTEGRIS INC
Form 424B5
September 08, 2009
Table of Contents

The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Filed Pursuant to Rule 424(b)(5)
Registration No. 333-160212

SUBJECT TO COMPLETION, DATED SEPTEMBER 8, 2009

PRELIMINARY PROSPECTUS SUPPLEMENT

(To Prospectus Dated September 4, 2009)

12,000,000 Shares

Entegris, Inc.

Common Stock

\$ per share

We are selling 12,000,000 shares of our common stock. We have granted the underwriters an option to purchase up to 1,800,000 additional shares of our common stock from us to cover over-allotments, if any.

Our common stock is listed on The NASDAQ Global Select Market under the symbol ENTG. The last reported sale price of our common stock on The NASDAQ Global Select Market on September 4, 2009 was \$4.07 per share.

Investing in our common stock involves risks. See Risk Factors in our Current Report on Form 8-K, filed with the Securities and Exchange Commission on September 2, 2009, which is incorporated by reference herein.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Share	Total
Public Offering Price	\$	\$
Underwriting Discount	\$	\$
Proceeds to Entegris, Inc. (before expenses)	\$	\$

The underwriters expect to deliver the shares to purchasers on or about September , 2009 through the book-entry facilities of The Depository Trust Company.

Sole Book-Running Manager

Joint-Lead Manager

Citi

Goldman, Sachs & Co.

Co-Managers

Craig-Hallum Capital Group

ABN AMRO Incorporated

PNC Capital Markets LLC

, 2009

Table of Contents

**TABLE OF CONTENTS
PROSPECTUS SUPPLEMENT**

	Page
<u>About this Prospectus Supplement</u>	S-i
<u>Industry and Market Data</u>	S-i
<u>Summary</u>	S-1
<u>Special Note Regarding Forward-Looking Statements</u>	S-12
<u>Use of Proceeds</u>	S-14
<u>Price Range of our Common Stock</u>	S-15
<u>Dividend Policy</u>	S-15
<u>Capitalization</u>	S-16
<u>Certain U.S. Federal Income Tax Considerations</u>	S-17
<u>Underwriting</u>	S-20
<u>Legal Matters</u>	S-23
<u>Experts</u>	S-23
<u>Where You Can Find More Information</u>	S-23
<u>Incorporation of Documents by Reference</u>	S-24

PROSPECTUS

	Page
<u>About this Prospectus</u>	3
<u>Our Business</u>	4
<u>Risk Factors</u>	4
<u>Special Note Regarding Forward-Looking Statements</u>	4
<u>Ratio of Earnings to Fixed Charges</u>	5
<u>Use of Proceeds</u>	5
<u>The Securities We May Offer</u>	6
<u>Description of Capital Stock</u>	6
<u>Description of Preferred Stock</u>	8
<u>Description of Debt Securities</u>	10
<u>Description of Warrants</u>	18
<u>Description of Units</u>	19
<u>Legal Ownership of Securities</u>	20
<u>Plan of Distribution</u>	23
<u>Legal Matters</u>	25
<u>Experts</u>	25
<u>Where You Can Find More Information</u>	25
<u>Incorporation of Documents by Reference</u>	25

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes certain matters related to us and this offering. The second part, the accompanying prospectus, dated September 4, 2009, gives more general information about the securities we may offer from time to time, some of which may not apply to the common stock offered by this prospectus supplement and the accompanying prospectus. For information about our capital stock, see "Description of Capital Stock" in the accompanying prospectus.

This prospectus supplement incorporates by reference important business and financial information about us and our subsidiaries that is not included in this prospectus supplement or the accompanying prospectus. Information incorporated by reference is available to prospective investors without charge by written request to us at 129 Concord Road, Billerica, MA 01821, Attention Corporate Secretary or by telephone at (978) 436-6500.

You should rely only on the information contained, or incorporated by reference, in this prospectus supplement or the accompanying prospectus or in any related free writing prospectus. Neither we nor the underwriters have authorized any other person to provide you with different or additional information. If anyone provides you with different or additional information, you should not rely on it. We are not, and the underwriters are not, making an offer or sale of securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information in this prospectus supplement and the accompanying prospectus or in any related free writing prospectus is accurate as of the date appearing on the front cover of this prospectus supplement only. Our business, financial condition, results of operations and prospects may have changed since that date.

If the information set forth in this prospectus supplement varies in any way from the information set forth in the accompanying prospectus, you should rely on the information contained in this prospectus supplement. If the information set forth in this prospectus supplement varies in any way from the information set forth in a document we have incorporated by reference, you should rely on the information in the more recent document.

INDUSTRY AND MARKET DATA

Except as otherwise specifically identified herein, all information regarding market position and industry data pertaining to our business contained in this prospectus supplement, the accompanying prospectus or incorporated by reference herein or therein, are based on management's estimates. Certain industry data is specifically attributable to Gartner, Inc., a third party information technology research and advisory company ("Gartner"). Although we believe that the Gartner information upon which we have relied is reliable and the estimates are reasonably derived, we and the underwriters have not independently verified market and industry data provided by Gartner, and we and the underwriters cannot guarantee the accuracy or completeness of any such information. You should be aware that estimates by management and any third parties may not be reliable, as estimates are inherently uncertain.

Table of Contents

SUMMARY

This summary highlights the information contained in this prospectus supplement. Because this is only a summary, it does not contain all of the information that may be important to you. For a more complete understanding of this offering, we encourage you to read this entire prospectus supplement and the accompanying prospectus, together with the documents incorporated by reference into this prospectus supplement and accompanying prospectus, including Risk Factors contained in our Current Report on Form 8-K, filed with the Securities and Exchange Commission (the SEC) on September 2, 2009, which is incorporated by reference herein, and our financial statements and the notes to the financial statements, before making a decision whether to invest.

In this prospectus supplement, unless the context otherwise requires, the terms Entegris, we, our, or the Company mean Entegris, Inc., a Delaware corporation, and its subsidiaries.

Our Company

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 that 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 supplement or the accompanying prospectus.

Recent Developments

Update on Third Quarter Net Sales

Our net sales were approximately \$71 million through the first nine weeks of the third quarter, which ends September 26, 2009, and we currently estimate net sales will be at least \$100 million for the full quarter. We reported net sales of \$82.6 million for the full second quarter ended June 27, 2009. The second and third quarters of 2009 each consists of 13 weeks. Our ability to achieve the estimated net sales for the quarter is subject to a number of factors (many of which are outside our control), including our ability to achieve order levels consistent with our current run rate to date this quarter and to manufacture and ship our products consistent with our current expectations. See Special Note Regarding Forward-Looking Statements for additional cautionary language regarding the uncertainty of forward looking information.

Industry Trends

We believe that semiconductor units produced, semiconductor fabrication facility utilization and sales of wafer fabrication equipment are key drivers of our semiconductor industry sales. In a May 2009 report, Gartner estimated that there will be approximately 505 billion, 540 billion, 601 billion and 654 billion semiconductor

S-1

Table of Contents

units produced worldwide in 2009, 2010, 2011 and 2012, respectively, which represents an estimated compound annual growth rate for such periods of approximately 9.0%. In an August 2009 report, Gartner estimated that semiconductor fabrication facility utilization would increase steadily from approximately 68% in the third quarter of 2009 to approximately 84% in the fourth quarter of 2010. In a June 2009 report, Gartner also estimated that approximately \$13 billion, \$16 billion, \$22 billion and \$27 billion will be invested in wafer fabrication equipment in 2009, 2010, 2011 and 2012, respectively, representing an estimated compound annual growth rate for such periods of approximately 28.2%.

Changes to Our Cost Structure

Based on the cost structure we had in place for the first quarter of 2008 (which was our peak quarter for net sales since the beginning of 2008), our quarterly net sales were \$148.2 million and our non-GAAP operating margin and our Adjusted EBITDA margin (each as defined below) for the quarter were 9.4% and 13.6%, respectively.

Beginning in the second quarter of 2008 and continuing through the second quarter of 2009, we have undertaken a number of initiatives to reduce our cost structure. These initiatives included an estimated \$13 million of previously announced permanent quarterly cost reductions, consisting primarily of an estimated \$5 million of fixed manufacturing expense reductions and an estimated \$8 million of operating expense reductions, a majority of which relate to actions already taken. In addition, during 2009, we implemented significant temporary cost reductions, including work furloughs, eliminating incentive compensation for 2008 and 2009 except for certain previously committed sales incentives and in those jurisdictions where not permitted by law, salary reductions and selective plant shutdowns. As a result, we estimate that our Adjusted EBITDA breakeven level (i.e. the amount of quarterly net sales we estimate we would need to achieve breakeven on an Adjusted EBITDA (as defined below) basis) was reduced from a breakeven level of approximately \$115 million of net sales for the first quarter of 2008 (based on the actual cost structure for that quarter) to a breakeven level of approximately \$85 million of net sales for the second quarter of 2009, after giving effect to the permanent cost reductions and the temporary cost reductions implemented through the end of that quarter. Based on our assumed cost structure (as defined below) we estimate that our Adjusted EBITDA breakeven level will be approximately \$98 million of net sales. The foregoing Adjusted EBITDA breakeven levels of net sales are not measures of our historical financial performance and there is no guarantee that had our historical net sales for those quarters actually been the amounts specified that we would have achieved a breakeven level of Adjusted EBITDA. For the second quarter of 2009, our quarterly net sales were \$82.6 million and our non-GAAP operating margin and our Adjusted EBITDA margin for the quarter were (11.9%) and (2.3%), respectively.

Based on our current cost structure, but assuming the completion of the implementation of our permanent cost reductions and the reversal of our temporary cost reductions (giving effect to such assumptions, our assumed cost structure), we currently estimate that:

a quarterly net sales level of \$110 million would yield a gross margin of approximately 37% to 39% for the quarter, a non-GAAP operating margin at a breakeven level for the quarter and an Adjusted EBITDA margin of approximately 5% to 7% for the quarter;

a quarterly net sales level of \$130 million would yield a gross margin of approximately 41% to 43% for the quarter, a non-GAAP operating margin of approximately 8% to 10% for the quarter and an Adjusted EBITDA margin of approximately 14% to 16% for the quarter; and

a quarterly net sales level of \$150 million would yield a gross margin of approximately 43% to 45% for the quarter, a non-GAAP operating margin of approximately 12% to 14% for the quarter and an Adjusted EBITDA margin approximately 17% to 19% for the quarter.

Limitations of Disclosures Regarding Assumed Cost Structure

The foregoing estimates are intended to be illustrative of certain possible effects our assumed cost structure and are not predictions or guarantees that we will achieve any specific level of quarterly net sales, gross margin, non-GAAP operating margin or Adjusted EBITDA margin in the future or that if we achieve any specific level of

S-2

Table of Contents

net sales, we will achieve a corresponding level of gross margin, non-GAAP operating margin or Adjusted EBITDA margin. Although our management believes the estimates and assumptions associated with the foregoing hypothetical information are reasonable, investors should not place undue reliance on the foregoing information as actual results may vary significantly. We are providing this information to help investors understand the potential impact of additional net sales on gross margin, non-GAAP operating margin and Adjusted EBITDA margin, given a constant assumed cost structure. The foregoing calculations are based, for example, on the assumption that our current cost structure, after giving effect to the completion of the implementation of our permanent cost reductions and the reversal of our temporary cost reductions, will remain essentially constant, with nominal incremental costs assumed at the quarterly net sales level of \$150 million. However, our actual cost structure is subject to change, and it is highly unlikely that our current cost structure will in fact remain constant in all respects material to the foregoing calculations. Variations in items such as raw materials costs, direct labor costs, other manufacturing costs, facilities costs, indirect labor and benefits costs, and sales mix may cause significant variations in our actual cost structure and results. Further, we may not achieve all the cost savings contemplated in our assumed cost structure in a timely manner or at all, and the actual incremental costs associated with net sales at higher levels may be significantly higher than assumed. As a result, if in the future we achieve quarterly net sales at a level set forth above, the actual gross margin, non-GAAP operating margin or Adjusted EBITDA margin may vary significantly from the amounts or ranges indicated. See also Special Note Regarding Forward-Looking Statements for additional cautionary language regarding the uncertainty of forward-looking information.

Non-GAAP Measures

Adjusted EBITDA margin and non-GAAP operating margin, together with the related measures of Adjusted EBITDA and non-GAAP operating income, are considered non-GAAP financial measures under the rules and regulations of the SEC. These financial measures are provided as a complement to financial measures provided in accordance with GAAP. We provide non-GAAP financial measures in order to better assess and reflect operating performance. Management believes the non-GAAP measures help indicate our baseline performance before certain gains, losses or other charges that may not be indicative of our business or future outlook. We believe these non-GAAP measures will aid investors overall understanding of our results by providing a higher degree of transparency for certain expenses and providing a level of disclosure that will help investors understand how we plan and measure our business. The calculations of Adjusted EBITDA margin and non-GAAP operating margin (based on the specified levels of net sales) set forth above are not measures of future financial performance for any specific period, and therefore we have not provided a comparable GAAP measure or reconciliation to a GAAP measure, which would require us to make assumptions and provide hypothetical figures regarding all restructuring, tax and other charges that would be required to be included in the comparable GAAP measure. The levels of any such charges in the future are dependent on unknown factors and future events, and may vary significantly from period to period, which makes it difficult to forecast and quantify such amounts for any specific future period or provide assumed or hypothetical figures that would be meaningful for use with calculations that do not relate to a specific future period. The presentation of non-GAAP measures is not meant to be considered in isolation, as a substitute for, or superior to, financial measures or information provided in accordance with GAAP.

GAAP to Non-GAAP Reconciliation

We define (i) Adjusted EBITDA as net income (loss) from continuing operations before interest expense, income tax expense, depreciation and amortization, and further adjusted to exclude restructuring costs (such as employee severance, production transfer costs and accelerated depreciation), other expense, net, and equity in net (earnings) loss of affiliates, (ii) Adjusted EBITDA margin as Adjusted EBITDA (as defined) as a percentage of net sales, (iii) non-GAAP operating income as operating income (loss) excluding amortization from intangible assets and restructuring costs, and (iv) non-GAAP operating margin as non-GAAP operating income as a percentage of net sales.

Table of Contents

Management uses Adjusted EBITDA, Adjusted EBITDA margin, non-GAAP operating income and non-GAAP operating margin as performance metrics for internal monitoring and planning purposes, including to facilitate analysis of investment decisions by providing a higher degree of transparency for certain expenses and describing how we plan and measure our own business. Management believes that these non-GAAP measures also help indicate our baseline performance before gains, losses or other charges that may not be indicative of our current business. In addition to their use to monitor performance trends, Adjusted EBITDA, Adjusted EBITDA margin, non-GAAP operating income and non-GAAP operating margin help management and investors to compare our performance with the performance of some of our peers.

Adjusted EBITDA and non-GAAP operating income do not represent net income (loss), operating income (loss) or net cash (used in) provided by operating activities as those terms are defined by GAAP and do not necessarily indicate whether cash flows will be sufficient to fund cash needs. Adjusted EBITDA, Adjusted EBITDA margin, non-GAAP operating income and non-GAAP operating margin are not recognized measurements under GAAP, and investors should not consider Adjusted EBITDA, Adjusted EBITDA margin, non-GAAP operating income and non-GAAP operating margin as substitutes for measures of our financial performance and liquidity as determined in accordance with GAAP, such as net income (loss), operating income (loss) or net cash (used in) provided by operating activities. Because other companies may calculate Adjusted EBITDA, Adjusted EBITDA margin, non-GAAP operating income and non-GAAP operating margin differently than we do, Adjusted EBITDA, Adjusted EBITDA margin, non-GAAP operating income and non-GAAP operating margin may not be comparable to similarly titled measures reported by other companies. Adjusted EBITDA has other limitations as an analytical tool, when compared to the use of net income (loss) from continuing operations, which is the most directly comparable GAAP financial measure, including:

Adjusted EBITDA does not reflect any attribution of costs to our operations related to our acquisitions and capital expenditures through depreciation and acquired intangible asset amortization charges; and

Adjusted EBITDA excludes certain expenses that we believe are not indicative of our baseline business performance, but which others may believe are normal expenses for the operation of a business, including restructuring charges.

The following tables reconcile GAAP operating income (loss) to non-GAAP operating income (loss) and net income from continuing operations to Adjusted EBITDA and presents the related margins stated as a percent of net sales (amounts in thousands, except percentages):

	Three months ended March 29, 2008	Three months ended June 27, 2009
GAAP Operating income (loss)	\$ 5,078	\$ (20,181)
Restructuring costs	3,827	5,452
Amortization of intangible assets	5,087	4,931
Non-GAAP operating income (loss)	\$ 13,992	\$ (9,798)
Non-GAAP operating margin	9.4%	(11.9)%

Table of Contents

	Three months ended March 29, 2008	Three months ended June 27, 2009
GAAP Net income (loss) from continuing operations	\$ 3,208	\$ (22,492)
Interest (income) expense, net	(13)	2,577
Other (income) expense, net	627	1,537
Equity in net (earnings) loss of affiliates	(138)	449
Income tax expense (benefit)	1,394	(2,252)
Restructuring costs	3,827	5,452
Amortization of intangible assets	5,087	4,931
Depreciation	6,216	7,903
Adjusted EBITDA	\$ 20,208	\$ (1,895)
Adjusted EBITDA As a % of net sales	13.6%	(2.3)%

Restructuring costs consists of (in thousands):

	Three months ended March 29, 2008	Three months ended June 27, 2009
Employee severance	\$ 3,827	\$ 2,681
Production transfer costs		2,248
Accelerated depreciation		523
	\$ 3,827	\$ 5,452

Amended and Restated Credit Agreement

On August 11, 2009, we further amended our credit agreement (the *Restated Credit Agreement*) among us and Poco Graphite, Inc. (*Poco*), as borrowers, Wells Fargo Bank, National Association, as agent, and certain other banks, as lenders. Prior to the August amendment, the *Restated Credit Agreement* prohibited us from issuing debt securities, and we were required to use 100% of the net proceeds received in any equity offering to prepay amounts outstanding under the *Restated Credit Agreement*. In addition, the borrowing base and, therefore, the funds available to us under the *Restated Credit Agreement*, would have been reduced by 100% of the net proceeds of any equity offering, but the revolving commitment amounts would not have been affected.

The August amendment permits us to issue unsecured convertible debt securities (a *Qualifying Debt Offering*) subject to the satisfaction of certain conditions, which include, among others, our compliance with the financial covenants contained in the *Restated Credit Agreement* and the receipt by us of at least \$75,000,000 in net proceeds from the offering. We will be required to use 100% of the net proceeds from any *Qualified Debt Offering* or equity offering to prepay amounts outstanding under the *Restated Credit Agreement*. In addition, the borrowing base was amended to provide that it will be reduced by (i) 50% of the net proceeds of any *Qualifying Debt Offering* or equity offering received by us on or before August 15, 2010 (*Qualified Offering Receipts*) and (ii) 100% of the net proceeds of any *Qualified Debt Offering* or equity offering received by us thereafter. Pursuant to the August amendment, the revolving commitment amounts under the *Restated Credit Agreement* will be reduced by 50% of any *Qualified Offering Receipts* received by us.

The *Restated Credit Agreement* requires that we not exceed the monthly negative year-to-date EBITDA amounts in 2009 and that we exceed positive year-to-date EBITDA amounts at prescribed levels on a monthly basis through March 2010. Under the *Restated Credit Agreement*,

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EBITDA is calculated by adding to consolidated net income for the applicable period, interest expense, expense for income taxes, non-cash expenses (including non-cash stock compensation expense), non-recurring expense associated with a permitted merger or acquisition, certain lease payments, depreciation, amortization, extraordinary non-cash losses and foreign exchange expense and certain expenses related to the Restated Credit Agreement incurred during 2009. Extraordinary non-cash losses include adjustments to our excess and obsolete inventory reserves and allowances for doubtful accounts, and impairment charges of long-lived assets and investments. In addition, the Restated Credit Agreement allows us to add-back up to \$1.0 million in restructuring charges to EBITDA.

S-5

Table of Contents

The minimum EBITDA levels required by the Restated Credit Agreement are indicated in the table below. Our actual EBITDA, as defined by the Restated Credit Agreement, was \$(20.2) million as of June 27, 2009.

Period ending	(In thousands)
<i>Fiscal 2009 year-to-date EBITDA levels</i>	
March 2009	\$ (31,000)
April 2009	(35,000)
May 2009	(42,000)
June 2009	(45,000)
July 2009	(53,000)
August 2009	(59,000)
September 2009	(62,000)
October 2009	(62,000)
November 2009	(62,000)
December 2009	(56,000)
<i>Fiscal 2010 year-to-date EBITDA levels</i>	
January 2010	\$ (3,000)
February 2010	2,000
March 2010	7,000

Beginning in the second quarter of 2010, the foregoing minimum EBITDA covenants expire, and the Restated Credit Agreement requires us to maintain a cash flow leverage ratio of no more than 3.0 to 1.0 and a fixed charge coverage ratio of at least 1.5 to 1.0. The cash flow leverage ratio is defined as the sum of short-term borrowings, long-term debt and capital lease obligations divided by the most recent two fiscal quarters EBITDA (as defined above) multiplied by two. The fixed charge coverage ratio is defined as the sum of EBITDA (as defined above) and lease expense less the sum of capital expenditures and income tax payments, which figure in turn is divided by the sum of interest expense, lease expense and scheduled principal payments.

The following table reconciles GAAP net income (loss) to EBITDA as defined in the Restated Credit Agreement (amounts in thousands):

	Six months ended June 27, 2009
GAAP Net income (loss)	\$ (60,237)
Interest expense	4,514
Income tax expense	(4,850)
Non-cash expenses	13,282
Depreciation	16,173
Amortization	9,912
Certain qualifying out-of-pocket expenses	1,000
 EBITDA as defined in the Restated Credit Agreement	 \$ (20,206)
Non-cash expenses:	
Stock-based compensation expense	\$ 4,179
Impairment of PP&E	314
Provision for doubtful accounts	373
Provision for excess & obsolete inventory	3,406
Charge for fair value mark-up of acquired inventory sold	4,065
Equity in net (earnings) / loss of affiliates	945
 Total non-cash expenses	 \$ 13,282

Qualifying out-of-pocket expenses:		
Restructuring charges	January 2009	\$ 126
Restructuring	February 2009	874
Total out-of-pocket expenses		\$ 1,000

S-6

Table of Contents

EBITDA as defined in the Restated Credit Agreement is being provided solely to illustrate compliance with our Restated Credit Agreement. It is not being provided as a measure of our historical financial performance and should not be used in this context as a substitute for a comparable GAAP measure, such as net income (loss) or net cash (used in) provided by operating activities, for evaluating our financial performance or liquidity.

In addition to the financial covenants contained in the Restated Credit Agreement, we are restricted from making more than \$16 million in capital expenditures in 2009 and more than \$20 million in capital expenditures in 2010. We are also required to maintain a minimum of \$25 million in domestic cash balances.

Under the terms of the Restated Credit Agreement, our ability to borrow is tied to a borrowing base of available assets. The borrowing base is generally comprised of the sum of 80% of funds in our eligible accounts, 45% of eligible inventory and 100% of the net orderly liquidation value of eligible fixed assets plus an adjustment amount that is currently \$13,196,985, but which steps down as follows: from (and including) the last day of the fiscal month ending October 2009 until (but not including) the last day of the fiscal month ending January 2010, \$9,196,985; from (and including) the last day of the fiscal month ending January 2010 until (but not including) the last day of the fiscal month ending April 2010, \$5,196,985; and on and after the last day of the fiscal month ending April 2010, \$2,000,000.

Under the terms of the Restated Credit Agreement, we may elect that the loans comprising each borrowing bear interest at a rate per annum equal to either (a) the sum of 4.25% plus a base rate equal to the highest of: (i) the prime rate then in effect, (ii) the Federal Funds rate then in effect plus 1.25%, (iii) the one-month LIBOR rate then in effect plus 1.25% or (iv) 3.25%; or (b) the sum of 5.25% plus the greater of the LIBOR rate then in effect or 1.50%. These interest rates may be increased by 2.25% if our fiscal year-to-date EBITDA loss for the period ending on the dates below is greater than the amount indicated in the table below:

Period ending	(In thousands)
July 2009	\$ (44,000)
August 2009	(47,000)
September 2009	(46,000)
October 2009	(46,000)
November 2009	(45,000)
December 2009	(39,000)

As of June 27, 2009, the weighted average interest rate on outstanding borrowings under the Restated Credit Agreement was 6.92%. In addition, we pay a commitment fee of 0.75% on the unborrowed amount available under the Restated Credit Agreement.

Our borrowings are guaranteed by all of our subsidiaries that are treated as domestic for tax purposes, including Entegris Pacific Ltd., Entegris Asia LLC, Entegris Materials, Inc. and Entegris Specialty Materials, LLC, and secured by a first-priority security interest in all assets owned by the borrowers under the Restated Credit Agreement or such domestic guarantors, except that the collateral includes only 65% of the voting stock owned by the borrowers or a domestic subsidiary of each subsidiary which is treated as foreign for tax purposes.

Voluntary prepayments and commitment reductions are permitted, in whole or in part, in minimum amounts without penalty, other than customary breakage costs with respect to LIBOR borrowings. Mandatory prepayments of the revolving loan, but not commitment reductions must be made with the proceeds of asset sales, insurance and condemnation recoveries and certain extraordinary receipts, (other than Qualified Offering Receipts, the repayment requirements of which are described above).

In addition, the Restated Credit Agreement includes negative covenants, subject to exceptions, restricting or limiting our ability and the ability of our subsidiaries to, among other things, sell assets; alter our business;

S-7

Table of Contents

engage in mergers, acquisitions and other business combinations; declare dividends or redeem or repurchase capital stock; incur, assume or permit to exist additional indebtedness or guarantees; make loans and investments; make acquisitions; incur liens; and enter into transactions with affiliates.

The Restated Credit Agreement also contains customary provisions relating to representations and warranties, affirmative covenants and events of default, including payment defaults, breach of representations and warranties, covenant defaults, certain events of bankruptcy, certain events under ERISA, material judgments, cross defaults and change in control. A breach of any of the covenants contained in the Restated Credit Agreement could result in a default under the Restated Credit Agreement. If any such default occurs, the lenders under the Restated Credit Agreement may elect (after the expiration of any applicable notice or grace periods) to declare all outstanding borrowings, together with accrued and unpaid interest and other amounts payable thereunder, to be immediately due and payable. The lenders under the Restated Credit Agreement also have the right to terminate any commitments they have to provide further borrowings. In addition, following an event of default under the Restated Credit Agreement, the lenders have the right to proceed against the collateral granted to them by us and the guarantors to secure our obligations and the obligations of the guarantors under the Restated Credit Agreement, including taking control of our domestic cash receipts from the collection of our receivables as well as certain other assets. If our obligations under the Restated Credit Agreement were accelerated, our assets may not be sufficient to repay our obligations in full and we cannot assure you that we would be able to refinance such debt (with the proceeds of debt or equity financings or otherwise) on reasonable terms, on a timely basis or at all.

We reduced our borrowings under our Restated Credit Agreement by \$5.5 million during August, 2009. As of August 29, 2009, our fiscal month end, the borrowing base under our Restated Credit Agreement supported approximately \$131.4 million in borrowings. There were \$124 million in outstanding borrowings and an additional \$1.3 million in undrawn letters of credit as of August 29, 2009. The estimated net proceeds of this offering as set forth in Use of Proceeds of \$45.4 million will be used to repay a portion of our outstanding borrowings under the Restated Credit Agreement. Following this repayment, we expect our borrowing base under the Restated Credit Agreement to be \$108.7 million. We currently believe that our resources (assuming modest continued improvements in our business), will be sufficient to repay the remaining outstanding balance under our Restated Credit Agreement when it becomes due in November 2011. However, we cannot assure you that we will have sufficient resources or cash flows from our operations to make such repayment. To the extent that our existing cash flows from operations, together with the proceeds of this offering, are not adequate to pay off the balance on our Restated Credit Agreement, we will be required to raise additional debt or equity capital (including convertible securities) or sell our assets. We cannot assure you that if such additional capital or funds were necessary, they would be available on reasonable terms, on a timely basis or at all.

Impairment of Goodwill and Long-Lived Assets

We assess the impairment of goodwill at least annually as of August 31. In addition, whenever events or changes in circumstances indicate that the carrying value may not be recoverable, we undertake an additional impairment assessment. Factors considered important, which could trigger an impairment review, and potentially an impairment charge, include the following:

significant underperformance relative to historical or projected future operating results;

significant changes in the manner of use of the acquired assets or our overall business strategy;

significant negative industry or economic trends; and

significant decline in our stock price for a sustained period, resulting in our market capitalization being below net book value.

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In accordance with Statement of Financial Accounting Standards (SFAS) No. 142, Goodwill and Other Intangible Assets, we tested for impairment of our goodwill in connection with our annual impairment test of

S-8

Table of Contents

goodwill as of August 31, 2008, and due to events and changes in circumstances through the end of 2008, we had an additional triggering event that indicated impairments had occurred.

Based on the results of our assessment of goodwill for impairment, it was determined that the carrying value of our net assets exceeded our estimated fair value. Therefore, we performed a second step of the impairment test to determine the implied fair value of our goodwill. We performed the assessment of impairment of our goodwill as of August 31, 2008 (our annual impairment test date) and, due to events and circumstances, through the end of the third and fourth quarters of the year ended December 31, 2008. During the third quarter, we wrote off \$379.8 million of goodwill, and at the end of the year, we wrote off the remaining goodwill of \$94.0 million. (See Note 2 to the consolidated financial statements for the fiscal year ended December 31, 2008, as described in our Report on Form 10-K, filed on March 2, 2009.)

We routinely consider whether indicators of impairment of the value of its property and equipment assets, particularly our molding equipment, and our intangible assets, are present. If such indicators are present, it is determined whether the sum of the estimated undiscounted cash flows attributable to the asset group in question is less than their carrying value. If less, an impairment loss is recognized based on the excess of the carrying amount of the asset group over its respective fair value. Fair value is determined by discounting estimated future cash flows, appraisals or other methods deemed appropriate. If the asset groups determined to be impaired are to be held and used, we recognize an impairment charge to the extent the fair value attributable to the asset group is less than the assets' carrying value. The fair value of the assets then becomes the assets' new carrying value, which is depreciated over the remaining estimated useful life of the assets.

As of December 31, 2008, we had \$159.7 million of net property, plant and equipment and \$93.1 million of net intangible assets. In connection with the triggering events discussed above, during the third and fourth quarters of fiscal year 2008 we reviewed our long-lived assets in accordance with SFAS No. 144 and determined that none of our long-lived assets were impaired. The determination was based on reviewing estimated undiscounted cash flows for our asset groups, all of which were greater than their carrying values. As required under U.S. generally accepted accounting principles, the SFAS No. 144 impairment analyses occurred before the SFAS No. 142 goodwill impairment assessments.

Long-lived assets are grouped with other assets and liabilities at the lowest level (asset groups) for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. We have four asset groups, identified by assessing our identifiable cash flows and the interdependence of such cash flows: Contamination Control Solutions (CCS), Microenvironments (ME), POCO Graphite (POCO) and Entegris Specialty Coatings (ESC).

Our estimate of undiscounted cash flows attributable to the asset groups included only future cash flows (cash inflows less associated cash outflows) that are directly associated with and that are expected to arise as a direct result of the use and eventual disposition of the asset group. Estimates of future cash flows used to test the recoverability of a long-lived asset (asset group) incorporated our assumptions about our use of the asset group and were determined for the remaining useful life of the primary asset (the principal long-lived tangible asset being depreciated or intangible asset being amortized that is the most significant component asset from which the asset group derives its cash-flow-generating capacity) of each asset group. The key assumptions were projected revenues, gross margin expectations and operating cost estimates. Future cash flows used to test the recoverability of each asset group were made for the remaining useful life of the asset group, which itself is based on the remaining useful life of the primary asset of each group as described below. Where the primary asset is not the asset of the asset group with the longest remaining useful life, estimates of future cash flows for the group assume the sale of the group at the end of the remaining useful life of the primary asset.

The recoverability test included all cash outflows that the asset group is estimated to incur to obtain the estimated future cash inflows. Accordingly, where required, we reflected within the cash flows of our asset

Table of Contents

groups an allocation of corporate expenses to our asset groups, because those assets require the services provided by our shared services infrastructure (among others, finance, human resources, information technology, sales and marketing, legal) if the asset group were operated on a stand-alone basis.

All asset groups had future undiscounted cash flows in excess of their carrying values by at least 40% as of December 31, 2008.

If either revenues for our asset groups decreased from the current forecast without offsetting decreases in costs, or if the asset group's operating costs increased from the current forecast without offsetting increases in revenues, the estimated undiscounted cash flows of the asset groups could be less than their carrying values. This would require an impairment loss to be recognized based on the excess of the carrying amount of the respective asset group over its fair value. As noted, fair value would be determined by discounting estimated future cash flows, appraisals or other methods deemed appropriate.

As described above, the evaluation of the recoverability of long-lived assets requires us to make significant estimates and assumptions. These estimates and assumptions primarily include, but are not limited to, the identification of the asset group at the lowest level of independent cash flows and the primary asset of the group; and long-range forecasts of revenue and costs, reflecting management's assessment of general economic and industry conditions, operating income, depreciation and amortization and working capital requirements.

Due to the inherent uncertainty involved in making these estimates, particularly in the current economic environment and plan for a recovery, actual results could differ from those estimates. In addition, changes in the underlying assumptions would have a significant impact on the conclusion that an asset group's carrying value is recoverable, or the determination of any impairment charge if it was determined that the asset values were indeed impaired.

Due to the decline in our market capitalization and the uncertain economic environment within the semiconductor industry, we will continue to monitor circumstances and events in future periods to determine whether additional asset impairment testing is warranted. It is not unlikely that in the future we may no longer be able to conclude that there is no impairment of our long-lived assets, nor can we provide assurance that material impairment charges of long-lived assets will not occur in future periods.

Table of Contents

The Offering

Issuer	Entegris, Inc.
Common Stock Offered by Us	12,000,000 shares of common stock, \$0.01 par value
Common Stock Outstanding Immediately Following this Offering	125,969,253 shares
The NASDAQ Global Select Market Symbol	ENTG
Use of Proceeds	We estimate that the net proceeds to us from this offering, after deducting underwriting discounts and estimated fees and expenses, will be approximately \$45.4 million. We intend to use the net proceeds from this offering to reduce the outstanding borrowings under our Restated Credit Agreement. Citigroup Global Markets Inc., ABN AMRO Incorporated and PNC Capital Markets LLC are underwriters in this offering. Affiliates of these underwriters are lenders under our Restated Credit Agreement and, in that capacity, will receive their pro rata portion of the net proceeds of this offering used to repay outstanding borrowings under the Restated Credit Agreement.

The number of shares of our common stock outstanding after this offering is based on 113,969,253 shares outstanding as of August 31, 2009 and excludes 7,089,000 shares of common stock issuable upon the exercise of stock options exercisable at a weighted average exercise price of \$1.13 per share and 3,736,000 outstanding but unvested restricted stock units.

In addition, the underwriters have a 30-day option to purchase up to 1,800,000 additional shares of our common stock. Unless otherwise indicated, statements in this prospectus supplement assume that this over-allotment option is not exercised.

Risk Factors

Investing in our common stock involves substantial risks. You should carefully consider all the information in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein prior to investing in our common stock. In particular, we urge you to carefully consider the factors set forth under "Risk Factors" in our Current Report on Form 8-K, filed with the SEC on September 2, 2009, which is incorporated by reference herein. The risks described in these documents are not the only ones we face, but those that we currently believe 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."

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein contain forward-looking statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. You should not place undue reliance on these statements. 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, 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 supplement, the accompanying prospectus and the documents incorporated by reference herein and therein 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 Restated Credit Agreement, our ability to repay our obligations under the Restated Credit Agreement when due, industry trends, forecasts and estimates, our assumed cost structure and anticipated cost reductions, the timing, strength and duration of any recovery in the semiconductor and microelectronics markets, 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:

industry downturns and cycles, including the strength of any recovery in the semiconductor and other high technology markets in which we participate;

the cyclical nature and rapid demand shifts in the semiconductor industry, including our ability to meet demand in response to rapid shifts;

our receipt and shipment of sufficient additional customer orders prior to the end of the third quarter;

the level of order cancellations or deferrals;

variations in exchange rates;

our ability to maintain our technological expertise;

loss of key customers or decline in order volumes for new and existing products;

our high fixed costs;

manufacturing difficulties;

competitive factors;

market acceptance of our 300 millimeter shipper products;

business acquisitions or joint ventures;

risks associated with our significant foreign operations;

restrictions in our Restated Credit Agreement;

our ability to secure additional funds;

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 which could materially adversely affect our business, financial condition and operating results;

costs associated with lengthy product qualification periods;

S-12

Table of Contents

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;

inability to protect our intellectual property 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, including the effect of an economic downturn on our customers, who may postpone spending and delay orders with us, or our suppliers and distributors, who may delay products and may increase receivable defaults and inventory challenges.

You should also consider carefully the statements set forth above in the section entitled "Risk Factors" as well as the information in our latest Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q and our Current Reports on Form 8-K, which address various factors that could cause results or events to differ from those described in the forward-looking statements. All forward-looking statements speak only as of the date made, and we undertake no obligation to update or revise publicly any such statements, whether as a result of new information, future events or otherwise.

Table of Contents

USE OF PROCEEDS

We estimate that the net proceeds to us from this offering, after deducting underwriting discounts and estimated fees and expenses, will be approximately \$45.4 million. We intend to use the net proceeds from this offering to reduce the outstanding borrowings under our Restated Credit Agreement. As of June 27, 2009, the weighted average interest rate on the outstanding borrowings under our Restated Credit Agreement, which matures on November 1, 2011, was 6.92%. These borrowings were used for working capital purposes. Citigroup Global Markets Inc., ABN AMRO Incorporated and PNC Capital Markets LLC are underwriters in this offering. Affiliates of these underwriters are lenders under our Restated Credit Agreement and, in that capacity, will receive their pro rata portion of the net proceeds of this offering used to reduce outstanding borrowings under the Restated Credit Agreement.

S-14

Table of Contents**PRICE RANGE OF OUR COMMON STOCK**

Our common stock, \$0.01 par value, trades on The NASDAQ Global Select Market under the symbol ENTG. The following table sets forth the highest and lowest sale prices of our common stock during fiscal years ended December 31, 2008 and 2007. As of August 31, 2009 there were 1,390 shareholders of record. This number does not include shareholders who hold their shares in street name or through broker or nominee accounts.

	High	Low
2007		
First Quarter	\$ 11.98	\$ 10.21
Second Quarter	\$ 12.18	\$ 10.11
Third Quarter	\$ 12.17	\$ 8.69
Fourth Quarter	\$ 9.49	\$ 7.87
2008		
First Quarter	\$ 8.76	\$ 6.39
Second Quarter	\$ 8.05	\$ 6.56
Third Quarter	\$ 7.10	\$ 4.49
Fourth Quarter	\$ 4.94	\$ 1.04
2009		
First Quarter	\$ 2.50	\$ 0.50
Second Quarter	\$ 3.43	\$ 0.88
Third Quarter (through September 4, 2009)	\$ 4.20	\$ 2.53

DIVIDEND POLICY

We currently do not, and do not intend to, pay cash dividends on our common stock in the foreseeable future. Furthermore, our Restated Credit Agreement contains restrictions that limit our ability to pay dividends. We currently intend to retain all available earnings for use in our business operations and debt service. On July 27, 2005 our board of directors declared a dividend of one common stock purchase right for each share of our common stock outstanding to shareholders of record on August 8, 2005, payable on August 8, 2005. For a description of the common stock rights plan, see Other Information under Item I, Business contained in our Annual Report on Form 10-K for the fiscal year ended December 31, 2008. Each right generally entitles the holder to purchase one one-hundredth of a share of a series of our preferred stock at a price of \$50.

Table of Contents**CAPITALIZATION**

The following table sets forth our capitalization as of June 27, 2009 on:

an actual basis; and

on an as adjusted basis to reflect this offering and the use of proceeds therefrom (assuming a public offering price of \$4.07 per share, the last reported sale price of our common stock on September 4, 2009 and after deducting underwriting discounts and estimated fees and expenses).

This information should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and our unaudited consolidated financial statements, including all related notes, included in our Quarterly Report on Form 10-Q for the quarter ended June 27, 2009, which is incorporated by reference herein.

	As of June 27, 2009	Use of proceeds (unaudited)	As adjusted
	(in thousands)		
Cash and cash equivalents	\$ 84,066	\$	\$ 84,066
Debt:			
Secured Revolving Credit	129,472	(45,406)	84,066
Other debt(1)	22,195		22,195
Total debt	\$ 151,667	\$ (45,406)	\$ 106,261
Shareholders' equity:			
Common stock, \$0.01 par value; 400,000,000 shares authorized; issued and outstanding shares 113,704,518	\$ 1,137	\$ 120	\$ 1,257
Additional paid-in capital	690,252	45,286	735,538
Retained deficit	(436,484)		(436,484)
Accumulated other comprehensive income	18,865		18,865
Total shareholders' equity	\$ 273,770	\$ 45,406	\$ 319,176
Total capitalization	\$ 425,437	\$	\$ 425,437

(1) Other debt includes unsecured Yen denominated borrowings by our Japanese subsidiary.

Table of Contents

CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS

The following is a general discussion of the anticipated material U.S. federal income tax consequences relating to the ownership and disposition of our common stock by non-United States holders, as defined below, who may purchase shares of our common stock and hold such shares as capital assets, within the meaning of Section 1221 of the Internal Revenue Code of 1986, as amended (the Code). This discussion is based on currently existing provisions of the Code, existing and proposed Treasury regulations promulgated thereunder, and administrative and judicial interpretation thereof, all as in effect or proposed on the date hereof and all of which are subject to change, possibly with retroactive effect or different interpretations. No ruling has been or will be sought from the Internal Revenue Service (IRS) with respect to the statements made and conclusions reached in this summary. No assurance can be given that the statements and conclusions made herein will be respected by the IRS or, if challenged, by a court.

This discussion does not address all the U.S. federal tax consequences that may be relevant to specific holders in light of their particular circumstances or to holders subject to special treatment under U.S. federal income or estate tax laws (such as controlled foreign corporations, passive foreign investment companies, a company that accumulates earnings to avoid U.S. federal income tax, financial institutions, insurance companies, tax-exempt organizations, retirement plans, partnerships and their partners, other pass-through entities and their members, dealers in securities, brokers, U.S. expatriates, or persons who have acquired shares of our common stock as part of a straddle, hedge, conversion transaction or other integrated investment). This discussion does not address U.S. federal alternative minimum, estate, gift, U.S. state and local and non-U.S. tax consequences relating to the ownership and disposition of our common stock.

YOU ARE URGED TO CONSULT YOUR OWN TAX ADVISOR REGARDING THE U.S. FEDERAL TAX CONSEQUENCES OF OWNING AND DISPOSING OF OUR COMMON STOCK (INCLUDING ESTATE, GIFT OR ALTERNATIVE MINIMUM TAX), AS WELL AS THE APPLICABILITY AND EFFECT OF ANY STATE, LOCAL OR FOREIGN TAX LAWS.

Definition of Non-United States Holder

As used in this discussion, the term non-United States holder refers to a beneficial owner of our common stock that for U.S. federal income tax purposes is not:

(i) a partnership (or other entity treated as a partnership);

(ii) an individual who is a citizen or resident of the United States;

(iii) a corporation (or other entity taxable as a corporation) created or organized in or under the laws of the United States or any state or political subdivision thereof or therein, including the District of Columbia;

(iv) an estate the income of which is subject to U.S. federal income tax regardless of source thereof; or

(v) a trust (a) with respect to which a court within the United States is able to exercise primary supervision over its administration and one or more United States persons have the authority to control all its substantial decisions, or (b) that has in effect a valid election under applicable U.S. Treasury Regulations to be treated as a United States person.

If a partnership or other entity or arrangement treated as a partnership for U.S. federal income tax purposes holds our common stock, the tax treatment of a partner will generally depend upon the status of the partner and the activities of the partnership. If you are a partner of a partnership holding shares of our common stock, we urge you to consult your own tax advisor.

Dividends

Distributions, if any, made on our common stock will constitute dividends for U.S. federal income tax purposes to the extent they are paid out of our accumulated or current earnings and profits, as determined for

Table of Contents

U.S. federal income tax purposes. Any distribution not constituting a dividend will be treated first as a return of capital that reduces a non-United States holder's adjusted tax basis in the common stock, but not below zero. Any excess will be treated as gain realized on the sale or disposition of the common stock and will be treated as described under "Sale, Exchange or Other Disposition" below.

We or a withholding agent will have to withhold U.S. federal withholding tax from the gross amount of any dividends paid to a non-United States holder at a rate of 30%, unless (i) an applicable income tax treaty reduces such tax, and a non-United States holder claiming the benefit of such treaty provides to us or such agent proper IRS documentation or (ii) the dividends are effectively connected with a non-United States holder's conduct of a trade or business in the United States (and, if required by an applicable income tax treaty, attributable to a U.S. permanent establishment) and the non-United States holder provides to us or such agent proper IRS documentation. In the latter case, such non-United States holder generally will be subject to U.S. federal income tax with respect to such dividends in the same manner as a U.S. resident or corporation, as applicable, unless otherwise provided in an applicable income tax treaty. Additionally, a non-United States holder that is a corporation could be subject to a branch profits tax on effectively connected dividend income at a rate of 30% (or at a reduced rate under an applicable income tax treaty). If a non-United States holder is eligible for a reduced rate of U.S. federal withholding tax pursuant to an income tax treaty, such non-United States holder may obtain a refund of any excess amount withheld by filing an appropriate claim for refund with the IRS.

Sale, Exchange or Other Disposition

Generally, a non-United States holder will not be subject to U.S. federal income tax on gain realized upon the sale, exchange or other disposition of shares of our common stock unless (i) such non-United States holder is an individual present in the United States for 183 days or more in the taxable year of the sale, exchange or other disposition and certain other conditions are met, (ii) the gain is effectively connected with such non-United States holder's conduct of a trade or business in the United States (and if required by an applicable income tax treaty, attributable to a U.S. permanent establishment), or (iii) we are or have been a U.S. real property holding corporation for U.S. federal income tax purposes at any time during the shorter of the five-year period preceding such sale, exchange or other disposition or the period that such non-United States holder held our common stock (such shorter period, the "Applicable Period").

We do not believe that we have been, are currently or are likely to be a U.S. real property holding corporation for U.S. federal income tax purposes. If we were to become a U.S. real property holding corporation, so long as our shares of common stock are regularly traded on an established securities market and continue to be traded, a non-United States holder would be subject to U.S. federal income tax on any gain from the sale, exchange or other disposition of our common stock only if such non-United States holder actually or constructively owned, during the Applicable Period, more than 5% of our common stock.

Except to the extent provided by an applicable income tax treaty, gain that is effectively connected with the conduct of a U.S. trade or business will be subject to U.S. federal income tax on a net basis at the rates applicable to United States persons generally (and, if the non-United States holder is a corporation, may also be subject to a 30% branch profits tax unless reduced by an applicable income tax treaty). If the non-United States holder is subject to U.S. taxation on capital gains because the holder is an individual present in the United States for 183 days or more in the taxable year and meets certain other conditions, then such holder will be subject to U.S. federal income tax at a rate of 30% (or at a reduced rate under an applicable income tax treaty) on the amount by which such holder's capital gains from the sale or other disposition of our common stock, to the extent treated as having a U.S. source, exceed certain capital losses allocable to U.S. sources.

Information Reporting and Backup Withholding Tax

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Generally, we must report annually to the IRS and to each non-United States holder any dividend or other distribution paid to such holder and the tax withheld, if any. These information reporting requirements apply

S-18

Table of Contents

regardless of whether withholding was required. Copies of these information returns may also be made available under the provisions of a specific treaty or agreement to the tax authorities of the country in which the non-United States holder resides.

Generally, backup withholding of United States federal income tax at the applicable rate (currently 28%) may apply to dividends and certain other payments made by us or our paying agent to a non-United States holder if such holder fails to make the appropriate certification that the holder is not a U.S. person or if we or our paying agent has actual knowledge or reason to know that the payee is a U.S. person.

Payments of the proceeds of a sale of our common stock may also be subject to information reporting and backup withholding rules under certain circumstances.

Any amounts withheld under the backup withholding rules from a payment to a non-United States holder of our common stock will be allowed as a credit against such holder's U.S. federal income tax liability, if any, or will be otherwise refundable, provided that the required information is furnished to the IRS in a timely manner.

Table of Contents**UNDERWRITING**

Citigroup Global Markets Inc. is acting as sole book-running manager of the offering and as representative of the underwriters named below and Goldman, Sachs & Co. is acting as joint-lead manager. Subject to the terms and conditions stated in the underwriting agreement dated the date of this prospectus supplement, each underwriter named below has severally agreed to purchase, and we have agreed to sell to that underwriter, the number of shares set forth opposite the underwriter's name.

Underwriter	Number of Shares
Citigroup Global Markets Inc.	
Goldman, Sachs & Co.	
Craig-Hallum Capital Group LLC	
ABN AMRO Incorporated	
PNC Capital Markets LLC	
 Total	 12,000,000

The underwriting agreement provides that the obligations of the underwriters to purchase the shares included in this offering are subject to approval of legal matters by counsel and to other conditions. The underwriters are obligated to purchase all the shares (other than those covered by the over-allotment option described below) if they purchase any of the shares.

Shares sold by the underwriters to the public will initially be offered at the initial public offering price set forth on the cover of this prospectus supplement. Any shares sold by the underwriters to securities dealers may be sold at a discount from the initial public offering price not to exceed \$ _____ per share. If all the shares are not sold at the initial offering price, the underwriters may change the offering price and the other selling terms.

If the underwriters sell more shares than the total number set forth in the table above, we have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus supplement, to purchase up to 1,800,000 additional shares at the public offering price less the underwriting discount. The underwriters may exercise the option solely for the purpose of covering over-allotments, if any, in connection with this offering. To the extent the option is exercised, each underwriter must purchase a number of additional shares approximately proportionate to that underwriter's initial purchase commitment. Any shares issued or sold under the option will be issued and sold on the same terms and conditions as the other shares that are the subject of this offering.

We, our officers and directors have agreed that, subject to certain exceptions, for a period of 90 days from the date of this prospectus supplement, we and they will not, without the prior written consent of Citi, dispose of or hedge any shares or any securities convertible into or exchangeable for our common stock. Citi in its sole discretion may release any of the securities subject to these lock-up agreements at any time without notice.

The shares are listed on The NASDAQ Global Select Market under the symbol ENTG.

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The following table shows the underwriting discounts and commissions that we are to pay to the underwriters in connection with this offering. These amounts are shown assuming both no exercise and full exercise of the underwriters' over-allotment option.

	Paid by Entegris	
	No Exercise	Full Exercise
Per share	\$	\$
Total	\$	\$

S-20

Table of Contents

In connection with the offering, the underwriters may purchase and sell shares in the open market. Purchases and sales in the open market may include short sales, purchases to cover short positions, which may include purchases pursuant to the over-allotment option, and stabilizing purchases.

Short sales involve secondary market sales by the underwriters of a greater number of shares than they are required to purchase in the offering.

Covered short sales are sales of shares in an amount up to the number of shares represented by the underwriters over-allotment option.

Naked short sales are sales of shares in an amount in excess of the number of shares represented by the underwriters over-allotment option.

Covering transactions involve purchases of shares either pursuant to the over-allotment option or in the open market after the distribution has been completed in order to cover short positions.

To close a naked short position, the underwriters must purchase shares in the open market after the distribution has been completed. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.

To close a covered short position, the underwriters must purchase shares in the open market after the distribution has been completed or must exercise the over-allotment option. In determining the source of shares to close the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option.

Stabilizing transactions involve bids to purchase shares so long as the stabilizing bids do not exceed a specified maximum.

Purchases to cover short positions and stabilizing purchases, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of the shares. They may also cause the price of the shares to be higher than the price that would otherwise exist in the open market in the absence of these transactions. The underwriters may conduct these transactions on The NASDAQ Global Select Market, in the over-the-counter market or otherwise. If the underwriters commence any of these transactions, they may discontinue them at any time.

An affiliate of Citigroup Global Markets Inc., an affiliate of ABN AMRO Incorporated and an affiliate of PNC Capital Markets LLC are lenders under our Restated Credit Agreement. We intend to use the net proceeds from this offering to reduce the outstanding borrowings thereunder and, in that capacity, these affiliates will receive their pro rata portion of the net proceeds of this offering. Each of these affiliates will receive more than 10% of the net proceeds of this offering and, therefore, the underwriters may be deemed to have a conflict of interest under Rule 5110(h) of the Conduct Rules of the Financial Industry Regulatory Authority, Inc. (FINRA). Accordingly, the pricing of this offering will be made in compliance with the provisions of Rule 2720(c)(3) of the conduct rules. Rule 2720(c)(3) requires that the public offering price can be no higher than that recommended by a qualified independent underwriter, as defined by the FINRA. Goldman, Sachs & Co. has served in that capacity and performed due diligence investigations and reviewed and participated in the preparation of the registration statement of which this prospectus supplement forms a part. Goldman, Sachs & Co. has received \$5,000 from us as compensation for such role.

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The underwriters have performed commercial banking, investment banking and advisory services for us from time to time for which they have received customary fees and reimbursement of expenses. The underwriters may, from time to time, engage in transactions with and perform services for us in the ordinary course of their business for which they may receive customary fees and reimbursement of expenses. In addition, affiliates of some of the underwriters are lenders, and in some cases agents or managers for the lenders, under our Restated Credit Agreement.

S-21

Table of Contents

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933, as amended (Securities Act), or to contribute to payments the underwriters may be required to make because of any of those liabilities.

Notice to Prospective Investors in the European Economic Area

In relation to each member state of the European Economic Area that has implemented the Prospectus Directive (each, a relevant member state), with effect from and including the date on which the Prospectus Directive is implemented in that relevant member state (the relevant implementation date), an offer of securities described in this prospectus supplement may not be made to the public in that relevant member state prior to the publication of a prospectus in relation to the securities that has been approved by the competent authority in that relevant member state or, where appropriate, approved in another relevant member state and notified to the competent authority in that relevant member state, all in accordance with the Prospectus Directive, except that, with effect from and including the relevant implementation date, an offer of securities to the public may be made in that relevant member state at any time:

to any legal entity that is authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;

to any legal entity that has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than 43,000,000 and (3) an annual net turnover of more than 50,000,000, as shown in its last annual or consolidated accounts;

to fewer than 100 natural or legal persons (other than qualified investors as defined below) subject to obtaining the prior consent of the Citigroup Global Markets, Inc. for any such offer; or

in any other circumstances that do not require the publication of a prospectus pursuant to Article 3 of the Prospectus Directive;

provided that any such legal or natural person (a permitted investor) is acquiring such securities (1) for its own account and not with a view to the notes being resold or placed within any relevant member state other than to other permitted investors, (2) for the account of other permitted investors, or (3) for the account of other persons or entities for whom it makes investment decisions on a wholly discretionary basis.

Each purchaser of securities described in this prospectus supplement located within a relevant member state will be deemed to have represented, acknowledged and agreed that it is a qualified investor within the meaning of Article 2(1)(e) of the Prospectus Directive.

For purposes of this provision, the expression an offer of securities to the public in relation to any securities in any relevant member state means the communication, in any form and by any means, of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe the securities, as the same may be varied in that member state by any measure implementing the Prospectus Directive in that member state, and the expression Prospectus Directive means Directive 2003/71/EC of the European Union and includes any relevant implementing measure in each relevant member state.

The sellers of the securities have not authorized and do not authorize the making of any offer of securities through any financial intermediary on their behalf, other than offers made by the underwriters with a view to the final placement of the securities as contemplated in this prospectus

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supplement. Accordingly, no purchaser of the securities, other than the underwriters, is authorized to make any further offer of the securities on behalf of the sellers or the underwriters.

S-22

Table of Contents

Notice to Prospective Investors in the United Kingdom

This prospectus supplement and the accompanying prospectus are only being distributed to, and are only directed at, persons in the United Kingdom that are qualified investors within the meaning of Article 2(1)(e) of the Prospectus Directive that are also (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the Order) or (ii) high net worth entities, and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (each such person being referred to as a relevant person). This prospectus supplement and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other persons in the United Kingdom. Any person in the United Kingdom that is not a relevant person should not act or rely on this document or any of its contents.

LEGAL MATTERS

The validity of the issuance of the shares of common stock offered hereby will be passed upon for us by Ropes & Gray LLP, Boston, Massachusetts. Weil, Gotshal & Manges LLP, New York, New York advised the underwriters in connection with the offering of the shares of common stock.

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 Entegris, Inc.'s subsidiaries except for Poco Graphite, Inc. which was acquired on August 11, 2008. The consolidated net sales of Entegris, Inc. and its 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 its subsidiaries as of December 31, 2008 were \$598 million, of which Poco Graphite, Inc. represented \$113 million. The audit of our internal control over financial reporting also excluded an evaluation of the 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 with respect to the securities offered by this prospectus supplement. 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>.

Table of Contents

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 supplement and the accompanying 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 with the SEC with respect to the securities being offered pursuant to this prospectus supplement. This prospectus supplement 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 supplement. Statements in this prospectus supplement 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 for 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, September 2, 2009 and September 8, 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 supplement.

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) 436-6500.

Table of Contents

PROSPECTUS

\$150,000,000

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 Risk Factors 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.

Table of Contents

Table of Contents

	Page No.
<u>About this Prospectus</u>	3
<u>Our Business</u>	4
<u>Risk Factors</u>	4
<u>Special Note Regarding Forward-Looking Statements</u>	4
<u>Ratio of Earnings to Fixed Charges</u>	5
<u>Use of Proceeds</u>	5
<u>The Securities We May Offer</u>	6
<u>Description of Capital Stock</u>	6
<u>Description of Preferred Stock</u>	8
<u>Description of Debt Securities</u>	10
<u>Description of Warrants</u>	18
<u>Description of Units</u>	19
<u>Legal Ownership of Securities</u>	20
<u>Plan of Distribution</u>	23
<u>Legal Matters</u>	25
<u>Experts</u>	25
<u>Where You Can Find More Information</u>	25
<u>Incorporation of Documents by Reference</u>	25

Table of Contents

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**.

Table of Contents

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

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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

Table of Contents

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.

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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 forward-looking 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.

Table of Contents

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.

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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

Table of Contents

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;

Table of Contents

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:

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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

Table of Contents

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.

Table of Contents

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;

Table of Contents

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;

Table of Contents

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

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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.

Table of Contents

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

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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.

Table of Contents

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;

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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;

Table of Contents

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;

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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.

Table of Contents

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 their stated maturity but may not 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.

Table of Contents

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.

Table of Contents

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;

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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.

Table of Contents

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

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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.

Table of Contents

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.

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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 depository'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

Table of Contents

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;

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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 depository's rules and procedures will affect these matters.

Global Securities

A global security is a security held by a depository 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 depository. Unless we specify otherwise in the applicable prospectus supplement, The Depository Trust Company, New York, New York, known as DTC, will be the depository for all securities issued in book-entry form.

Table of Contents

A global security may not be transferred to or registered in the name of anyone other than the depository, its nominee or a successor depository, 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 depository, 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 depository 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 depository, 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 depository 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 depository'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 depository's actions or for its records of ownership interests in a global security. We and the trustee also do not supervise the depository in any way;

The depository 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

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Financial institutions that participate in the depository'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.

Table of Contents

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 reallocated 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.**

Table of Contents

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 reallocated 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.

Table of Contents

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 Entegris, Inc. also excluded an evaluation of the 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

Table of Contents

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) 436-6500.

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.

Table of Contents

12,000,000 Shares

Entegris, Inc.

Common Stock

PRELIMINARY PROSPECTUS SUPPLEMENT

September 8, 2009

Citi

Goldman, Sachs & Co.

Craig-Hallum Capital Group

ABN AMRO Incorporated

PNC Capital Markets LLC