$\frac{\text{Registration No. 333-}}{\text{As filed with the Securities and Exchange Commission on January 8, 2001}}$

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM S-8 REGISTRATION STATEMENT Under THE SECURITIES ACT OF 1933

ENTEGRIS, INC.

(Exact name of registrant as specified in its charter)

Minnesota (State or other jurisdiction of incorporation or organization)

41-1941551 (I.R.S. Employer Identification No.)

3500 Lyman Boulevard Chaska, Minnesota 55318 (Address, including zip code, of registrant's principal executive offices)

Entegris, Inc. Employee Stock Ownership Plan and Trust Entegris, Inc. 1999 Long-Term Incentive and Stock Option Plan Entegris, Inc. Outside Directors' Stock Option Plan Entegris, Inc. Employee Stock Purchase Plan (Full title of the plans)

Stan Geyer Chief Executive Officer Entegris, Inc. 3500 Lyman Boulevard Chaska, Minnesota 55318 (952) 556-3131

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

Copy to:

Dunkley, Bennett, Christensen & Madigan, P.A. 701 Fourth Avenue South, Suite 700 Minneapolis, Minnesota 55415 (612) 339-1290

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered	Proposed maximum offering price per share (1)	Proposed maximum aggregate offering price (1)	Amount of registration fee
Common stock, \$.01 par value	20,287,194 shares	(See Notes to Calculation of Registration Fee)	\$133,576,646	\$33,394.16

Estimated solely for the purpose of calculating the amount of the (1)registration fee pursuant to Rule 457(h). The price per share and

aggregate offering price are based upon (a) the weighted average exercise price for Common Shares subject to outstanding options granted by Entegris, Inc. (the "Company") under (i) the Entegris, Inc. 1999 Long-Term Incentive and Stock Option Plan, and (ii) the Entegris, Inc. Outside Directors' Stock Option Plan or (b) the average of the high and low prices of Registrant's Common Shares on January 5, 2001 as reported on The Nasdaq Stock Market, for common shares outstanding or reserved for issuance pursuant to (i) the Entegris, Inc. Employee Stock Ownership Plan and Trust, (ii) the Entegris, Inc. 1999 Long-Term Incentive and Stock Option Plan, (iii) the Entegris, Inc. Outside Directors' Stock Option Plan, and (iv) the Entegris, Inc. Employee Stock Purchase Plan (pursuant to Rule 457(c) under the Securities Act.)

NOTES TO CALCULATION OF REGISTRATION FEE

The chart below details the calculations of the registration fee:

Type of Shares	Number of Common Shares	Offering Price per Common Share (Weighted Average Exercise Price)	Aggregate Offering Price
Common shares outstanding under the Entegris, Inc. Employee Stock Ownership Plan Common shares issuable pursuant to outstanding options	3,800,000	\$8.03125	\$30,518,750
under the Entegris, Inc. 1999 Long-Term Incentive and Stock Option Plan Common shares reserved for future issuance pursuant to the	7,849,803	\$4.36	34,225,141
Entegris, Inc. 1999 Long-Term Incentive and Stock Option Plan Common shares issuable pursuant to outstanding options	3,646,655	\$8.03125	29,287,198
under the Entegris, Inc. Outside Directors' Stock Option Plan Common shares reserved for future issuance pursuant to the	155,842	\$4.59	715,315
Entegris, Inc. Outside Directors' Stock Option Plan Common shares reserved for future issuance pursuant to the Entegris, Inc. Employee Stock Purchase Plan	834,894 4,000,000	\$8.03125 \$8.03125	6,705,242 32,125,000
Proposed Maximum Offering Price	4,000,000	40.03123	\$133,576,646
Registration Fee			\$33,394.16

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents filed by Entegris, Inc. (the "Company") with the Securities and Exchange Commission are incorporated by reference into this Registration Statement:

- (a) The final prospectus filed under Rule 424(b) of the Securities Act contained in the Company's Registration Statement on Form S-1 (File No. 333-33668), filed July 11, 2000 under the Securities Act, including any amendments or reports filed for the purpose of updating such prospectus;
- (b) The description of the Company's Common Shares contained in the Company's Registration Statement on Form 8-A, filed June 30, 2000, under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), including any amendments or reports filed for the purpose of updating such description.
- (c) Annual Report on Form 10-K for the year ended August 26, 2000.
- (d) Report on Form 8-K dated January 8, 2001.

All reports and other documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be a part of this registration statement from the date of the filing of such reports and documents.

Item 5. Interests of Names Experts and Counsel.

Certain members of the firm of Dunkley, Bennett, Christensen & Madigan, P.A., the Company's legal counsel, which is delivering an opinion in connection with this Registration Statement (see Exhibit 5.1) are holders of options to purchase 231,014 shares of the Company's common stock under the Entegris, Inc. 1999 Long-Term Incentive and Stock Option Plan at a weighted average exercise price of \$3.94.

Item 6. Indemnification of Directors and Officers.

Minnesota law and our articles of incorporation and bylaws provide that we will, subject to limitations, indemnify any person made or threatened to be made a party to a proceeding by reason of that person's former or present official capacity with us. We will indemnify this person against judgments, penalties, fines, settlements and expenses, and, subject to limitations, we will pay or reimburse reasonable expenses before the final disposition of the proceeding.

As permitted by Minnesota law, our articles of incorporation provide that our directors will not be personally liable to us or our shareholders for monetary damages for a breach of fiduciary duty as a director, subject to the following exceptions:

- any breach of the director's duty of loyalty to us or our shareholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- liability for illegal distributions under section 302A.559 of the Minnesota Business Corporation Act or for civil liabilities for state securities law violations under section 80A.23 of the Minnesota statutes; and
- . any transaction from which the director derived an improper personal benefit.

Presently, there is no pending litigation or proceeding involving any of our directors, officers, employees or agents where indemnification will be required or permitted. We are not aware of any threatened litigation or proceeding that might result in a claim for indemnification.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, may be permitted to directors, officers or persons controlling Entegris pursuant to the foregoing provisions, we have been informed that in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and therefore is unenforceable.

Item 8. Exhibits.

Exhibit Number	Description
4*	Articles of Incorporation of Entegris, Inc.
5.1	Opinion of Dunkley, Bennett, Christensen & Madigan, P.A.
5.2	Determination Letter from the Internal Revenue Service with respect to qualification of the Entegris, Inc. Employee Stock Ownership Plan
23.1	Consent of KPMG LLP.
23.2	Consent of Dunkley, Bennett, Christensen & Madigan, P.A. (contained in Exhibit 5 to this Registration Statement).
99.1*	Entegris, Inc. Employee Stock Ownership Plan and Trust
99.2*	Entegris, Inc. 1999 Long-Term Incentive and Stock Option Plan
99.3*	Entegris, Inc. Outside Directors' Stock Option Plan
99.4*	Entegris, Inc. Employee Stock Purchase Plan

*Documents incorporated by reference from the Company's Registration Statement on Form S-1, as amended (No. 333-33668), declared effective by the Commission on July 10, 2001.

Item 9. Undertakings.

- (a) The undersigned registrant hereby undertakes:
- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933 (the "Securities Act");
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement; and
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement.

- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new Registration Statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and each filing of the Plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new Registration Statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or other controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public

policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Chaska, State of Minnesota, on January 8, 2001.

ENTEGRIS, INC.

By /s/ Stan Geyer

Stan Geyer
Chief Executive Officer

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Stan Geyer, James E. Dauwalter and John D. Villas or any of them (with full power to act alone), as his or her true and lawful attorneys-in-fact and agents, with full powers of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any or all amendments (including post-effective amendments) to this Registration Statement on Form S-8, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities indicated on January 8, 2001.

Signatures	Title	Date
/s/ Daniel R. Quernemoen Daniel R. Quernemoen	Chairman of the Board	
/s/ James A. Bernards	Director	
James A. Bernards		
/s/ Robert J. Boehlke	Director	
Robert J. Boehlke		
/s/ Mark A. Bongard	Director	
Mark A. Bongard		
/s/ James E. Dauwalter	Director	
James E. Dauwalter		
/s/ Stan Geyer	Chief Executive Officer	
Stan Geyer	and bilector	
/s/ Delmer M. Jensen	Director	
Delmer M. Jensen		
/s/ Gary F. Klingl	Director	
Gary F. Klingl		
/s/ Roger D. McDaniel	Director	

/s/ John D. Villas Executive Vice President and Chief Financial Officer

John D. Villas (Chief Financial & Accounting Officer)

EXHIBIT INDEX TO FORM S-8

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[Letterhead of Dunkley, Bennett, Christensen & Madigan, P.A.]

January 8, 2001

Entegris, Inc. 3500 Lyman Boulevard Chaska, MN 55318

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We have acted as counsel to Entegris, Inc., a Minnesota corporation (the "Company"), in connection with the proposed registration by the Company pursuant to a Registration Statement on Form S-8 of an aggregate of 20,287,194 shares of Common Stock, par value \$0.01 per share (the "Shares"), to be offered under the Entegris, Inc. Employee Stock Ownership Plan, the Entegris, Inc. 1999 Long-Term Incentive and Stock Option Plan, the Entegris, Inc. Outside Directors' Stock Option Plan and the Entegris, Inc. Employee Stock Purchase Plan (the "Plans").

We have examined such documents and have reviewed such questions of law as we have considered necessary and appropriate for the purposes of the opinions set forth below.

In rendering our opinions set forth below, we have assumed the authenticity of all documents submitted to us as originals, the genuineness of all signatures and the conformity to authentic originals of all documents submitted to us as copies. As to questions of fact material to our opinions, we have relied upon certificates or representations of officers of the Company, public officials and others.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and, upon issuance, delivery and payment therefor in accordance with the terms of the Plan, will be validly issued, fully paid and nonassessable.

Our opinions expressed above are limited to the laws of the State of Minnesota.

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

Very truly yours,

/s/ Dunkley, Bennett, Christensen & Madigan, P.A.

EXHIBIT 5.2

INTERNAL REVENUE SERVICE DISTRICT DIRECTOR 1100 COMMERCE STREET DALLAS, TX 75242

Date: May 30, 1996

FLUOROWARE, INC. 102 JONATHAN BOULEVARD NORTH CHASKA, MN 55318

DEPARTMENT OF THE TREASURY

Employer Identification Number: 41-0908341 File Folder Number: 410008883 Person to Contact: JAMES CELINSKI Contact Telephone Number: (414) 798-8360 Plan Name:

EMPLOYEE STOCK OWNERSHIP PLAN Plan Number: 003

Dear Applicant:

We have made a favorable determination on your plan, identified above, based on the information supplied. Please keep this letter in your permanent records

Continued qualification of the plan under its present form will depend on its effect in operation. (See section 1.401-1(b) (3] of the Income Tax Regulations.) We will review the status of the plan in operation periodically

The enclosed document explains the significance of this favorable determination letter, points out some features that may affect the qualified status of your employee retirement plan, and provides information on the reporting requirements for your plan. It also describes some events that automatically nullify it. It is very important that you read the publication.

This letter relates only to the status of your plan under the Internal Revenue Code. It is not a determination regarding the effect of other federal or local statutes.

This determination letter is applicable for the amendment(s) adopted on 11-07-89 & 10-03-89.

This determination letter is also applicable for the amendment(s) adopted on 08-26-95 & 12-05-95.

This plan satisfies the nondiscrimination in amount requirement of section 1.401(a) $\overset{-}{(4)}$ -1(b) $\overset{-}{(2)}$ of the regulations on the basis of a design-based safe harbor described in the regulations.

This letter is issued under Rev. Proc. 93-39 and considers the amendments required by the Tax Reform Act of 1986 except as otherwise specified in this letter.

This plan satisfies the nondiscriminatory current availability requirements of section 1.401(a) (4)-4(b) of the regulations with respect to those benefits, rights, and features that are currently available to all employees in the plan's coverage group. For this purpose, the plan's coverage group consists of those employees treated as currently benefiting for purposes of demonstrating that the plan satisfies the minimum coverage requirements of

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FLUOROWARE, INC.

section 410(b) of the Code.

This letter may not be relied upon with respect to whether the plan satisfies the qualification requirements as amended by the Uruguay Round Agreements Act, Pub. L. 103-465.

We have sent a copy of this letter to your representative as indicated in the power of attorney.

If you have questions concerning this matter, please contact the person whose name and telephone number are shown above.

Sincerely yours,

/s/ Bobby E. Scott

Bobby E. Scott District Director

Enclosures: Publication 794 Reporting & Disclosure Guide for Employee Benefit Plans

INDEPENDENT AUDITORS' CONSENT

We consent to the use of our reports incorporated by reference in this Form S-8.

/s/ KPMG LLP

Minneapolis, Minnesota January 8, 2001