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)

Delaware

(State or other jurisdiction of incorporation or organization)

129 Concord Road, Billerica, MA

(Address of Principal Executive Offices)

Emerging growth company

41-1941551

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

01821

(Zip Code)

Entegris, Inc. 2020 Stock Plan (Full title of the plan)

Joseph Colella, Esq.
Vice President, Deputy General Counsel and Assistant Secretary
Entegris, Inc.
129 Concord Road
Billerica, MA 01821
(978) 436-6500

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

ndicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth
ompany. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b2 of the Exchange
act.

Large accelerated filer \square Accelerated filer \square Smaller reporting company \square

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. \Box

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered (1)	Proposed maximum offering price per share (2)	Proposed maximum aggregate offering price (2)	Amount of registration fee (2)
Common Stock, par value \$0.01 per share	12,342,416	\$49.62	\$612,430,682	\$79,494

(1) This registration statement on Form S-8 (this "Registration Statement") covers shares of common stock of Entegris, Inc. (the "Registrant"), par value \$0.01 per share (the
"Common Stock"), that may be issued pursuant to awards granted under the Entegris, Inc. 2020 Stock Plan (the "Plan"), consisting of up to 9,300,000 shares
initially reserved for issuance under the Plan plus up to an additional 3,042,416 shares of Common Stock that as of December 31, 2019 were subject to outstanding
awards under the Registrant's 2010 Stock Plan, as amended, and that may become issuable under the Plan. In addition, pursuant to Rule 416(a) under the
Securities Act of 1933, as amended, this Registration Statement also covers such additional indeterminable number of shares of Common Stock as may be
required to be issued pursuant to the Plan in the event of a stock dividend, stock split, recapitalization or other similar change in the Common Stock.
(2) Estimated solely for the purpose of determining the registration fee pursuant to Rule 457(h) on the basis of the average of the high and low sale prices of the Common
Stock on The Nasdaq Global Select Market on April 22, 2020.

PART I Information Required in the Section 10(a) Prospectus

The information required by Part I is included in the documents sent or given to participants in the 2020 Stock Plan of Entegris, Inc. (the "Registrant") pursuant to Rule 428(b)(1) of the Securities Act of 1933, as amended (the "Securities Act"). Such documents are not required to be, and are not, filed with the Securities and Exchange Commission (the "SEC") either as part of this Registration Statement or as a prospectus or prospectus supplement pursuant to Rule 424 under the Securities Act. These documents and the documents incorporated by reference in this Registration Statement pursuant to Item 3 of Part II of Form S-8, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

PART II INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents filed with the Commission are hereby incorporated by reference and shall be deemed to be a part of this Registration Statement:

- (a) the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2019 (No. 001-32598), as filed with the SEC on February 7, 2020;
- (b) the Registrant's Schedule 14A proxy statement for its 2020 annual meeting of stockholders (No. 001-32598), as filed with the SEC on March 18, 2020;
- (c) the Registrant's Quarterly Report on Form 10-Q for the three months ended March 28, 2020 (No. 001-32598), as filed with the SEC on April 21, 2020;
- (d) the Registrant's Current Reports on Form 8-K (No. 001-32598), as filed with the SEC on January 10, 2020, January 15, 2020, April 15, 2020, April 23, 2020, April 24, 2020 and April 29, 2020;
- (e) the description of the Registrant's common stock contained in the Registrant's registration statement on Form 8-A filed with the SEC on June 30, 2000, as updated by the description of the Registrant's common stock contained in Exhibit 4.1 to its Annual Report on Form 10-K for the fiscal year ended December 31, 2019 (No. 001-32598) filed with the SEC on February 7, 2020, and including any amendment or report filed for the purpose of updating such description; and
- (f) All documents filed by the Registrant pursuant to Sections 13(a), 13(c), 14, and 15(d) of the Securities Exchange Act of 1934, as amended, after the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement indicating that all securities offered have been sold or that deregisters the distribution of all securities then remaining unsold, will be deemed to be incorporated by reference into this Registration Statement and will be a part of this Registration Statement from the date such document is filed, except as to portions of any future Current Report on Form 8-K furnished under items 2.02, 7.01, and 9.01 of Form 8-K that are deemed not to be filed under such provisions.

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

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

The validity of the securities registered hereby is being passed upon by Joseph Colella, Vice President, Deputy General Counsel and Assistant Secretary of the Registrant. Mr. Colella beneficially owns shares of Common Stock and restricted stock units for shares of Common Stock.

Item 6. Indemnification of Officers and Directors.

The Registrant is incorporated under the laws of the State of Delaware. Section 145 ("Section 145") of the General Corporation Law of the State of Delaware, as the same exists or may hereafter be amended (the "DGCL"), inter alia, provides that a Delaware corporation may indemnify any persons who were, are or are threatened to be made parties to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person is or was an officer, director, employee or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided that such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his or her conduct was illegal.

Section 145 further authorizes a corporation to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or enterprise, against any liability asserted against him or her and incurred by him or her in any such capacity, arising out of his or her status as such, whether or not the corporation would otherwise have the power to indemnify him or her under Section 145.

The Registrant's certificate of incorporation provides that the Registrant's directors shall not be liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except to the extent that the exculpation from liabilities is not permitted under the DGCL as in effect at the time such liability is determined. The Registrant's certificate of incorporation provides that the corporation shall indemnify its directors to the full extent permitted by the laws of the State of Delaware. In addition, the Registrant's bylaws provide for indemnification of the registrant's officers and directors to the fullest extent permitted by applicable law.

All of the Registrant's directors and officers are covered by insurance policies maintained by the Registrant against specified liabilities for actions taken in their capacities as such, including liabilities under the Securities Act of 1933.

The Registrant has entered into indemnification agreements with its directors and certain of its executive officers providing for the indemnification of such director or executive officer, as applicable, to the extent legally permissible and the payment of expenses, including counsel fees reasonably incurred in connection with the defense or disposition of any action, suit or other proceeding in which such individual may be involved by reason of such individual being or having been a director or officer of the Registrant.

Item 7. Exemption From Registration Claimed.

Not applicable.

Item 8. Exhibits.

Exhibit Number Description 4.1 Entegris, Inc. 2020 Stock Plan (incorporated by reference to Annex 1 to the Registrant's Schedule 14A proxy statement for its 2020 annual meeting of stockholders (No. 001-32598), as filed with the SEC on March 18, 2020) 5.1 Opinion of Joseph Colella, Vice President, Deputy General Counsel and Assistant Secretary of the Registrant. 23.1 Consent of Joseph Colella, Vice President, Deputy General Counsel and Assistant Secretary of the Registrant (included in the opinion filed as Exhibit 5.1). 23.2 Consent of KPMG LLP. 24.1 Power of Attorney (included on the signature page hereto).

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;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of this 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 this Registration Statement;
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in this Registration Statement or any material change to such information in this Registration Statement;
 - provided, however, that paragraphs (a) (1) (i) and (a) (1) (ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in this Registration Statement.
- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 that is

incorporated by reference in this 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 initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the provisions referred to in Item 6 hereof, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 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 directors, officer or 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 of 1933 and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, Entegris, Inc. 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 on Form S-8 to be signed on its behalf by the undersigned, thereunto duly authorized, in the Town of Billerica, Commonwealth of Massachusetts, on April 29, 2020.

ENTEGRIS, INC.

By /s/ Bertrand Loy Bertrand Loy

President and Chief Executive Officer

POWER OF ATTORNEY

We, the undersigned officers and directors of Entegris, Inc., hereby severally constitute and appoint each of Bertrand Loy, Gregory B. Graves and Joseph Colella our true and lawful attorneys-in-fact, with full power to them in any and all capacities, to sign any and all amendments to this Registration Statement on Form S-8 (including any post-effective amendments thereto), and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact may 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 below by the following persons in the capacities and as of the dates indicated.

Signature	Title	Date
/s/ Bertrand Loy Bertrand Loy	President, Chief Executive Officer and Director (Principal executive officer)	April 29, 2020
/s/ Gregory B. Graves Gregory B. Graves	Executive Vice President, Chief Financial Officer and Treasurer (Principal financial officer)	April 29, 2020
/s/ Michael D. Sauer Michael D. Sauer	Vice President, Controller and Chief Accounting Officer (Principal accounting officer)	April 29, 2020
/s/ Paul L.H. Olson Paul L.H. Olson	Director, Chairman of the Board	April 29, 2020
/s/ Michael A. Bradley Michael A. Bradley	Director	April 29, 2020
/s/ R. Nicholas Burns R. Nicholas Burns	Director	April 29, 2020
/s/ James F. Gentilcore James F. Gentilcore	Director	April 29, 2020
/s/ James P. Lederer James P. Lederer	Director	April 29, 2020
/s/ Azita Saleki-Gerhardt Azita Saleki-Gerhardt	Director	April 29, 2020
/s/ Brian F. Sullivan Brian F. Sullivan	Director	April 29, 2020



April 29, 2020

Entegris, Inc. 129 Concord Road Billerica, MA 01821

Ladies and Gentlemen:

I am Vice President, Deputy General Counsel and Assistant Secretary to Entegris, Inc., a Delaware corporation (the "Company"), and am issuing this opinion in connection with the registration statement on Form S-8 (the "Registration Statement") being filed by the Company with the Securities and Exchange Commission (the "Commission") on the date hereof for the purpose of registering under the Securities Act of 1933, as amended (the "Securities Act"), an aggregate of 12,342,416 shares (the "Shares") of common stock, par value \$0.01 per share, of the Company, which may be issued under the Entegris, Inc. 2020 Stock Plan (the "Plan").

In this connection, I have examined and am familiar with originals or copies, certified or otherwise identified to my satisfaction, of (i) the Registration Statement; (ii) the Company's Amended and Restated Certificate of Incorporation, as amended; (iii) the Company's By-Laws, as amended; (iv) such records of the corporate proceedings of the Company as I have deemed necessary or appropriate as a basis for the opinions set forth herein; and (v) such certificates of officers of the Company and others and such other records and documents as I have deemed necessary or appropriate as a basis for the opinion set forth herein.

In my examination, I have assumed the legal capacity of all natural persons, the genuineness of all signatures, the authenticity of all documents submitted to me as originals, the conformity to original documents of all documents submitted to me as certified, conformed or photostatic copies and the authenticity of the originals of such copies. As to any facts material to the opinion expressed herein which I have not independently established or verified, I have relied upon statements and representations of other officers and representatives of the Company and others.

I am admitted to the Bar of the Commonwealth of Massachusetts and do not purport to be an expert on, or express any opinion concerning, any law other than the substantive law of the Commonwealth of Massachusetts and the Delaware General Corporation Law.

Based upon and subject to the foregoing, I am of the opinion that the Shares have been duly authorized for issuance and, when issued and sold by the Company pursuant to and in accordance with the Plan, will be validly issued, fully paid and nonassessable.

I hereby consent to the filing of this opinion with the Commission as an exhibit to the Registration Statement. In giving this consent, I do not thereby admit that I am in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

This opinion is furnished by me as Vice President, Deputy General Counsel and Assistant Secretary to the Company in connection with the filing of the Registration Statement and is not to be used, circulated or quoted for any other purpose or otherwise referred to or relied upon by any other person without the prior express written permission of the Company other than in connection with the offer and sale of Shares while the Registration Statement is in effect.

Very truly yours,

/s/ Joseph Colella Joseph Colella Vice President, Deputy General Counsel and Assistant Secretary

Consent of Independent Registered Public Accounting Firm

The Board of Directors Entegris, Inc. Billerica, Massachusetts

We consent to the incorporation by reference in the registration statement on Form S-8 of Entegris, Inc. relating to the Entegris, Inc. 2020 Stock Plan of our reports dated February 7, 2020, with respect to the consolidated balance sheets of Entegris Inc. and subsidiaries as of December 31, 2019 and 2018, and the related consolidated statements of operations, comprehensive income, equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes (collectively, the consolidated financial statements), and the effectiveness of internal control over financial reporting as of December 31, 2019, which reports appear in the December 31, 2019 annual report on Form 10-K of Entegris, Inc.

Our report dated February 7, 2020 on the consolidated financial statements refers to a change in the method of accounting for leases.

Our report dated February 7, 2020 on the effectiveness of internal control over financial reporting as of December 31, 2019 contains an explanatory paragraph that states management excluded assets of \$324 million and revenues of \$33 million associated with the acquisitions of Digital Specialty Chemicals Limited, MPD Chemicals, and Hangzhou Anow Microfiltration Co. Ltd. from its assessment of internal control over financial reporting as of December 31, 2019. Our audit of internal control over financial reporting of Entegris, Inc. and subsidiaries also excluded an evaluation of the effectiveness of internal control over financial reporting of Digital Specialty Chemicals Limited, MPD Chemicals, and Hangzhou Anow Microfiltration Co. Ltd.

/s/ KPMG LLP Minneapolis, Minnesota April 29, 2020