Versum Materials, Inc. Form 425 January 28, 2019

Entegris and Versum Materials to Combine January 28, 2019 Filed by Entegris, Inc. pursuant to Rule 425 under the Securities Act of 1933 and deemed filed pursuant to Rule 14a-12 under the Securities Exchange Act of 1934 Subject Company: Versum Materials, Inc. Commission File No.: 1-37664 Date: January 28, 2019

Forward-Looking Statements This communication contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that are subject to risks and uncertainties and are made pursuant to the safe harbor provisions of Section 27A of the Securities Act of 1993, as amended and Section 21E of the Securities Exchange Act of 1934, as amended. Where a forward-looking statement expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. The words "believe" "continue," "could," "expect," "anticipate," "intends," "estimate," "forecast," "project," "should," " "would" or the negative thereof and similar expressions are intended to identify such forward-looking statements. These forward-looking statements are only predictions and involve known and unknown risks and uncertainties, many of which are beyond Entegris' and Versum Materials' control. Statements in this communication regarding Entegris, Versum Materials and the combined company that are forward-looking, including projections as to the anticipated benefits of the proposed transaction, the impact of the proposed transaction on Entegris' and Versum Materials' business and future financial and operating results, the amount and timing of synergies from the proposed transaction, and the closing date for the proposed transaction, are based on management's estimates, assumptions and projections, and are subject to significant uncertainties and other factors, many of which are beyond Entegris' and Versum Materials' control. These factors and risks include, but are not limited to, (i) weakening of global and/or regional economic conditions, generally or specifically in the semiconductor industry, which could decrease the demand for Entegris' and Versum Materials' products and solutions; (ii) the ability to meet rapid demand shifts; (iii) the ability to continue technological innovation and introduce new products to meet customers' rapidly changing requirements; (iv) the concentrated customer base; (v) the ability to identify, effect and integrate acquisitions, joint ventures or other transactions; (vi) the ability to protect and enforce intellectual property rights; (vii) operational, political and legal risks of Entegris' and Versum Materials' international operations; (viii) Entegris' dependence on sole source and limited source suppliers; (ix) the increasing complexity of certain manufacturing processes; (x) raw material shortages and price increases; (xi) changes in government regulations of the countries in which Entegris and Versum Materials operate; (xii) the fluctuation of currency exchange rates; (xiii) fluctuations in the market price of Entegris' stock; (xiv) the level of, and obligations associated with, Entegris' and Versum Materials' indebtedness; and (xv) other risk factors and additional information. In addition, material risks that could cause actual results to differ from forward-looking statements include: the inherent uncertainty associated with financial or other projections; the prompt and effective integration of Entegris' businesses and the ability to achieve the anticipated synergies and value-creation contemplated by the proposed transaction; the risk associated with Entegris' and Versum Materials' ability to obtain the approval of the proposed transaction by their shareholders required to consummate the proposed transaction and the timing of the closing of the proposed transaction, including the risk that the conditions to the transaction are not satisfied on a timely basis or at all and the failure of the transaction to close for any other reason; the risk that a consent or authorization that may be required for the proposed transaction is not obtained or is obtained subject to conditions that are not anticipated; unanticipated difficulties or expenditures relating to the transaction, the response of business partners and retention as a result of the announcement and pendency of the transaction; and the diversion of management time on transaction-related issues. For a more detailed discussion of such risks and other factors, see Entegris' and Versum Materials' filings with the Securities and Exchange Commission, including under the heading "Risks Factors" in Item 1A of Entegris' Annual Report on Form 10-K for the fiscal year ended December 31, 2017, filed on February 15, 2018, and Versum Materials' Annual Report on Form 10-K for the fiscal year ended September 30, 2018, filed on November 21, 2018 and in other periodic filings, available on the SEC website or www.entegris.com or www.versummaterials.com. Entegris and Versum Materials' assume no obligation to update any forward-looking statements or information, which speak as of their respective dates, to reflect events or circumstances after the date of this communication, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws. Investors should not assume that any lack of update to a previously issued "forward-looking statement" constitutes a reaffirmation of that statement.

Legal Disclosures Additional Information about the Merger and Where to Find It This communication does not constitute an offer to buy or sell or the solicitation of an offer to buy or sell any securities or a solicitation of any vote or approval. This communication relates to a proposed business combination between Entegris and Versum Materials. In connection with the proposed transaction, Entegris intends to file with the Securities and Exchange Commission (the "SEC") a registration statement on Form S-4 that will include a joint proxy statement of Entegris and Versum Materials that also constitutes a prospectus of Entegris. Each of Entegris and Versum Materials also plan to file other relevant documents with the SEC regarding the proposed transaction. No offering of securities shall be made, except by means of a prospectus meeting the requirements of Section 10 of the U.S. Securities Act of 1933, as amended. Any definitive joint proxy statement/prospectus (if and when available) will be mailed to stockholders of Entegris and Versum Materials. INVESTORS AND SECURITY HOLDERS ARE URGED TO READ THE REGISTRATION STATEMENT, JOINT PROXY STATEMENT/PROSPECTUS AND OTHER DOCUMENTS THAT MAY BE FILED WITH THE SEC CAREFULLY AND IN THEIR ENTIRETY IF AND WHEN THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT THE PROPOSED TRANSACTION. Investors and security holders will be able to obtain free copies of these documents (if and when available) and other documents containing important information about Entegris and Versum Materials, once such documents are filed with the SEC through the website maintained by the SEC at http://www.sec.gov. Copies of the documents filed with the SEC by Entegris will be available free of charge on Entegris' website at http://www.entegris.com or by contacting Entegris' Investor Relations Department by email at irelations@entegris.com or by phone at 978-436-6500. Copies of the documents filed with the SEC by Versum Materials will be available free of charge on Versum Materials' website at investors.versummaterials.com or by phone at 484-275-5907. Participants in the Solicitation Entegris, Versum Materials and certain of their respective directors and executive officers may be deemed to be participants in the solicitation of proxies in respect of the proposed transaction. Information about the directors and executive officers of Entegris is set forth in Entegris' proxy statement for its 2018 annual meeting of shareholders, which was filed with the SEC on March 28, 2018, and Entegris' Annual Report on Form 10-K for the fiscal year ended December 31, 2017, which was filed with the SEC on February 15, 2018. Information about the directors and executive officers of Versum Materials is set forth in its proxy statement for its 2019 annual meeting of shareholders, which was filed with the SEC on December 20, 2018, and Versum Materials' Annual Report on Form 10-K for the fiscal year ended September 30, 2018, which was filed with the SEC on November 21, 2018. Other information regarding the participants in the proxy solicitations and a description of their direct and indirect interests, by security holdings or otherwise, will be contained in the joint proxy statement/prospectus and other relevant materials to be filed with the SEC regarding the proposed transaction when such materials become available. Investors should read the joint proxy statement/prospectus carefully when it becomes available before making any voting or investment decisions. You may obtain free copies of these documents from Entegris or Versum Materials using the sources indicated above.

About Versum Materials Headquartered in Tempe, Arizona, Versum Materials is a cutting edge specialty materials supplier for the semiconductor industry with core capabilities in Specialty Gases, Advanced Materials, Planarization, and Services. Top 5 Industry Supplier ~250 Customers 2,300 Employees Operates in 10+ Countries

About the Transaction / Benefits Enhanced Product Breadth and Depth Highly complementary and diversified portfolios that combined will bring customers enhanced technical capabilities World Class Technology R&D capabilities to better address and capitalize on customers' evolving needs for new materials and higher purity requirements as device architectures become more complex Global Scale and Operational Excellence Better engage with the industry's leaders in all major markets, increasing our long term commitment to innovation and collaboration

What This Means For You Entegris and Versum Materials recognize the contributions that you make to our success Values and unifying principles align and will drive an employee-centric culture Larger company can provide expanded opportunities for all employees around the globe New company will retain the Entegris name Until the transaction closes, Entegris and Versum Materials will continue to be separate, independent companies Operate our business as usual

Next Steps / Integration Today is Day 1 Transaction is expected to close in the second half of 2019 Separate Companies Entegris and Versum Materials will continue to operate as independent companies Integration Planning Integration Office led by Bruce Beckman with members of both companies to address how to best bring our companies together Business as Usual Continue to provide our customers with the same outstanding service and high-quality products and solutions PACE values guide what we do and how we do it. People and Teamwork Respect and dignity Global perspective Partnership Accountability, Integrity, and Trust Empowerment Commitment Ethics Creativity and Innovation Learning Growth Value Dedication to Excellence Leadership Focus Progress