Ladies and Gentlemen:

As leading technology innovators backed by approximately $3 billion in annual R&D and capex spending, I and my colleagues of Merck KGaA, Darmstadt, Germany have long been impressed with Versum Materials, Inc. ("Versum") and the potential that Versum’s management and employees has for delivering value to Versum’s customers, communities and stockholders. The transaction that Versum recently disclosed – one in which Versum stockholders would receive stock of Entegris, Inc. ("Entegris") – significantly undervalues Versum. Accordingly, I am pleased to propose, with the unanimous and enthusiastic support of our executive board, that Merck KGaA, Darmstadt, Germany acquire all of the outstanding shares of Versum common stock for $48 per share in cash (the "Proposal"). The Proposal reflects an enterprise value for Versum of $6 billion and an EV/FY 2018 EBITDA multiple of approximately 13.3x. The Proposal represents a premium of 15.9% to the current value per Versum share and a premium of 51.7% to the undisturbed trading price per Versum share on the trading day prior to announcement of the Entegris transaction.

Instead of the speculative value offered by the Entegris transaction, the all-cash Proposal would deliver immediate and certain cash value to Versum stockholders and employees, shielding them from the significant integration, operational and market risks posed by the all-stock Entegris transaction.

There can be no question that the Proposal is a Superior Proposal for purposes of the Versum-Entegris merger agreement, and we wish to engage with Versum and its advisors immediately in order to capture for Versum’s stockholders, employees, and customers the tremendous superior value inherent in the Proposal.
Commitment to Investment Benefitting Employees and Customers

As you know, Merck KGaA, Darmstadt, Germany is a leading science and technology company which operates across healthcare, life sciences and performance materials with a market capitalization of approximately $47 billion and revenues of approximately $17 billion. Our Performance Materials business is an innovation driven market leader in electronic chemicals with exposure to high growth market segments. Given ongoing technological change including AI, internet-of-things, data analytics and the like, long term secular trends will create lasting demand for semiconductors. The leaders in the industry will be those willing to invest and able to innovate and adapt to changing technologies.

Together we will be one of those leaders. The complementary fit of our and Versum’s businesses and the strength of our combined team will justify significant and sustained investment, which will benefit all of Merck KGaA, Darmstadt, Germany’s and Versum’s employees and customers worldwide. An important part of our strategy will be to maintain Versum’s headquarters as the major hub for the combined electronic materials business in the U.S.

Transaction Terms

Merck KGaA, Darmstadt, Germany is prepared to complete the transaction on terms consistent with the terms agreed with Entegris, aside from changes relating to us as the counterparty, the necessary differences between a cash and stock transaction and other changes necessary in light of applicable laws and regulations.

Certainty of Closing

In addition to its tremendous financial superiority relative to the Entegris transaction, please note the following benefits of the Proposal:

- **No Financing Risk:** Merck KGaA, Darmstadt, Germany has a very substantial market capitalization and a strong investment grade credit rating. The definitive agreement would not contain a financing condition, and any requisite financing in excess of cash on hand would be supported by committed financing with no incremental conditionality.

- **Strong Track Record of Completing Acquisitions:** Merck KGaA, Darmstadt, Germany has a strong record of completing acquisitions and is well-known as a reliable merger partner. Since 2009, we have completed acquisitions with a total transaction value of approximately $27 billion. Our track record includes two acquisitions of large U.S. public companies, including the $7 billion acquisition of Millipore and the $17 billion acquisition of Sigma-Aldrich as well as the $2.5 billion acquisition of UK-based AZ Electronic Materials.

- **No Anticipated Regulatory Issues:** Given our strong M&A track record, we have significant experience in obtaining antitrust approvals both in the U.S. and globally, as well as CFIUS approval in the U.S. Based on our review of
available information, the complementary nature of the businesses and our prior experience, there should not be regulatory obstacles to the transaction and we believe the necessary approvals can be secured without undue delay.

- **No Shareholder Vote:** Unlike the pending transaction with Entegris, we do not require a shareholder vote and already have all necessary internal approvals in place.

**Next Steps and Timing**

After entering into a mutually agreeable confidentiality agreement with Merck KGaA, Darmstadt, Germany, we wish to undertake discussions and review the information required for us to complete our due diligence – including information that Versum has furnished to Entegris. Our team is in a position to complete diligence expeditiously and finalize a transaction agreement at the same time. Given that we assume that Versum has significantly progressed its proxy statement, we are confident that Versum stockholder approval of a transaction with Merck KGaA, Darmstadt, Germany can be obtained rapidly.

**Advisors**

Merck KGaA, Darmstadt, Germany has engaged Guggenheim Securities, LLC as its financial advisor and Sullivan & Cromwell LLP as its legal counsel. Our advisors are ready, willing and able to coordinate with Versum’s advisors concerning next steps.

**Public Disclosure**

Please be aware that given applicable requirements under German law, Merck KGaA, Darmstadt, Germany is required to disclose this proposal publicly and simultaneously with its delivery to you. A copy of the release we have made is attached hereto.

**Non-Binding Effect**

This letter does not create or constitute any legally binding obligation or commitment by either of us relating to the proposed transaction or otherwise. A binding agreement will only arise when and if a definitive transaction is agreed and a definitive merger agreement is executed and delivered by each of the parties.
Dr. Stefan Oschmann
Chairman of the Executive Board & CEO

We look forward to your prompt response and to moving forward together so that we may complete this transaction expeditiously and unlock the value inherent in this exciting and valuable transaction.

Sincerely,

[Signature]

Stefan Oschmann
Chief Executive Officer
About Merck KGaA, Darmstadt, Germany

Merck KGaA, Darmstadt, Germany a leading science and technology company, operates across Healthcare, Life Science and Performance Materials. Around 51,000 employees work to make a positive difference to millions of people’s lives every day by creating more joyful and sustainable ways to live. From advancing gene editing technologies and discovering unique ways to treat the most challenging diseases to enabling the intelligence of devices – Merck KGaA, Darmstadt, Germany is everywhere. In 2017, Merck KGaA, Darmstadt, Germany generated sales of € 15.3 billion in 66 countries.

Scientific exploration and responsible entrepreneurship have been key to Merck KGaA, Darmstadt, Germany’s technological and scientific advances. This is how Merck KGaA, Darmstadt, Germany has thrived since its founding in 1668. The founding family remains the majority owner of the publicly listed company. Merck KGaA, Darmstadt, Germany holds the global rights to the Merck KGaA, Darmstadt, Germany name and brand. The only exceptions are the United States and Canada, where the business sectors of Merck KGaA, Darmstadt, Germany operate as EMD Serono in healthcare, MilliporeSigma in life science, and EMD Performance Materials.

Cautionary Statement Regarding Forward-Looking Information

This communication may contain forward-looking statements based on current assumptions and forecasts made by Merck KGaA, Darmstadt, Germany management. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. These factors include those discussed in Merck KGaA, Darmstadt, Germany’s public reports which are available on the Merck KGaA, Darmstadt, Germany website at www.emdgroup.com. Merck KGaA, Darmstadt, Germany assumes no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.

Additional Information and Where to Find It

This communication does not constitute an offer to buy or solicitation of an offer to sell any securities. This communication relates to a proposal which Merck KGaA, Darmstadt, Germany has made for a business combination transaction with Versum. In furtherance of this proposal and subject to future developments, Merck KGaA, Darmstadt, Germany (and, if a negotiated transaction is agreed, Versum) intends to file relevant materials with the SEC, including a proxy statement on Schedule 14A (the “Proxy Statement”). This communication is not a substitute for the Proxy Statement or any other document Merck KGaA, Darmstadt, Germany, Versum or Entegris may file with the SEC in connection with the proposed transaction.
STOCKHOLDERS OF VERSUM ARE URGED TO READ ALL RELEVANT DOCUMENTS FILED WITH THE SEC, INCLUDING THE PROXY STATEMENT, BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT THE PROPOSED TRANSACTION. Any definitive Proxy Statement will be delivered to the stockholders of Versum. Investors and security holders will be able to obtain free copies of these documents (if and when available) and other documents filed with the SEC by Merck KGaA, Darmstadt, Germany through the website maintained by the SEC at http://www.sec.gov.

Participants in Solicitation
Merck KGaA, Darmstadt, Germany and its directors and executive officers may be deemed to be participants in the solicitation of proxies from the holders of Versum common stock in respect of the proposed transaction. Information regarding the participants in the proxy solicitation and a description of their direct and indirect interests, by security holdings or otherwise, will be contained in the Proxy Statement and other relevant materials to be filed with the SEC in respect of the proposed transaction when they become available.