

Via Facsimile

June 3, 2005

John D. Villas  
Chief Financial Officer  
Entegris, Inc.  
3500 Lyman Boulevard  
Chaska, Minnesota 55318

Re: Entegris, Inc.  
Registration Statement on Form S-4  
File No. 333-124719  
Filed May 10, 2005

Dear Mr. Villas:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation.

In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

General

1. Where we ask for revisions to your disclosure in one place in the registration statement, please make similar revisions in all other applicable places in the registration statement.
2. We note disclosure on page 35 that Entegris and Mykrolis have a former commercial relationship. Please provide the information required by Items 1005(b) and 1011(a) of Regulation M-A, which are incorporated by Item 14(b)(7) of Schedule 14A.

Prospectus Cover Page

3. Please disclose that shareholders do not have appraisal rights.
4. In order to enhance the readability of the prospectus cover page, please condense the information and use bullet point disclosure. See Rule 421(d) of Regulation C. In this respect, please do not focus on the existence of merger subsidiaries here. Instead, simply state that the companies will engage in a merger of equals.
5. Because this letter to Entegris and Mykrolis shareholders also serves as soliciting material, strive for a balanced presentation. For example, where you include the boards' recommendation, disclose with equal prominence that board members will directly benefit from the merger. Make similar revisions in all applicable places in the registration statement. Also, consider eliminating inherently subjective statements like "we believe that the combined company will be a global leader in materials integrity management for the microelectronics industry."

Questions and Answers About the Merger, page 1

6. You currently repeat information in your Q&A section and your summary section. The Q&A should not repeat any information that

appears in the summary, and the summary should not repeat information in the Q&A. For purposes of eliminating redundancies and grouping like information together, please view your Q&A and summary as one section. Also, when revising your disclosure, we strongly suggest that you discuss only the procedural questions (i.e. voting procedures, appraisal procedures, merger subsidiary mechanics, reincorporation, etc.) with short, clear answers in the Q&A, and place the material, substantive disclosure of the consideration and the terms of the merger, including taxation in the summary.

7. Please disclose the anticipated time period between the vote and the closing of the merger.

Q: Why are the companies proposing the merger?, page 1

8. Please clarify what you mean by global "leader." Tell us supplementally of the basis for your statement.

Q: What will a stockholder receive in the merger?, page 1

9. Please state that Mykrolis stockholders will not know at the time they vote on the merger the value of the Entegris shares that they will receive in the merger since the exchange ratio is fixed. Please include a table disclosing the per share value of the Entegris shares that Mykrolis stockholders will receive in the merger based upon a reasonable range of recent prices for the shares. Please disclose the total number of shares that may be issued based upon current outstanding shares of Entegris common stock. Also provide an example of the number of shares to be issued on a per share basis using the trading price of the securities as of the latest practicable date.

10. Add disclosure that Mykrolis fractional shareholders will receive cash in lieu of stock and as a result, will no longer be shareholders of the company. We assume that odd-lot shareholders will be cashed out. If true, provide a statement to this effect or state the threshold amount of shares that will determine which shareholders will be cashed out.

Q: What are the material U.S. federal income tax consequences of the merger to Entegris and Mykrolis stockholders?, page 7

11. Delete the reference on page 7 "Assuming that they so qualify. . . ." Instead, disclose counsel's opinion regarding the taxation of the merger and identify counsel.

Summary, page 10

12. Please disclose the basis for all of your assertions here and in the remainder of the registration statement that you are a leading provider of materials integrity management products and services.

Opinion of Entegris' Financial Advisor, page 12

13. Disclose here and in the main section, if true, that no updated opinion will be obtained.

Conditions to Completion of the Merger, page 14

14. Disclosure here and elsewhere indicates that the merger's closing is conditioned upon receipt of written opinions on tax matters. Since each party may waive the condition, you must:

\* File executed opinions before effectiveness even though the

merger agreement is conditioned upon the receipt of one or more favorable tax opinions at closing.

\* Undertake to recirculate and resolicit if the condition is waived and the change in tax consequences is material. We note your disclosure on page 19.

Risk Factors, page 17

We may be unable to successfully integrate our operations..., page 17

15. Please quantify the cost savings you anticipate for the merger.

Entegris and Mykrolis will incur substantial expenses whether or not the merger is completed, page 18

16. Please discuss the expenses in greater detail. For instance, do these costs just include those you have enumerated or do they also include the costs of implementing the merger and hoped for synergies.

Failure to complete the merger could negatively affect Entegris` and Mykrolis` stock prices, page 18

17. The bulleted points appear to be duplicative of the risks raised in the risk factor titled "Entegris and Mykrolis will incur substantial expenses..." Please revise to combine.

Uncertainty regarding the merger and the effects of the merger could adversely affect each company`s relationships..., page 19

18. In addition to bundling multiple risks, this risk factors appears to draw the generic conclusion that it would have a "material adverse effect" on your business. Please revise to state with more specificity the risks to your financial condition or operations. Also, you mention your ability retain key management in the aftermath of the merger. To the extent management is aware that this will occur, please describe.

19. We note that all of the risk factors relate to the consequences of the merger or potential for a merger. Consider risk factors specifically related to the businesses of Entegris and Mykrolis after the merger.

Cautionary Statement Concerning Forward-Looking Statements, page 20

20. The penultimate paragraph in this section is overly broad and inappropriate with respect to the application of cautionary language contained in this section to all subsequent statements by the companies. Please revise.

21. Refer to your statement that, "Entegris and Mykrolis undertake no obligation to update or revise the forward-looking statements, whether as a result of new information, future events or otherwise." Please confirm supplementally that you are aware of your responsibility to make full and prompt disclosure of material facts, both favorable and unfavorable, regarding your financial condition, and that this responsibility may extend to situations where management knows or has reason to know that previously disclosed

projections no longer have a reasonable basis. See Item 10(b)(3)(iii) of Regulation S-K.

22. To the extent that the proxy statement/prospectus states that it includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, please be advised that the staff is not making any determination as to whether the disclosures (including, e.g., cautionary language or the placement of disclosures) satisfy the requirements of such Sections.

Solicitation of Proxies, page 29

23. We note that you may employ various methods to solicit proxies, including mail, telephone, personal interviews, or the Internet. Be advised that all written soliciting materials, including emails or scripts to be used soliciting proxies over the telephone, must be filed under the cover of Schedule 14A. Please refer to Item 14a-6(b) and (c). Please confirm your understanding.

The Merger, page 35

24. We note statements throughout the document regarding the boards' belief that the merger would result in great synergies. At an appropriate place, please describe the strategic rationale and the economic and operational benefits of the merger. In order for stockholders to make an educated decision about the merger, you should explain what the combined company will look like going forward. For example, add discussion as to how each company complements or overlaps each other. Is each company focused on the same markets? If so, what plans do you have to integrate operations or eliminate duplicative functions? What will the anticipated synergies and cost savings be?

Background of the Merger, page 35

25. Please disclose prominently that Mykrolis stockholders will not be protected against the decline in the price of Entegris' stock between the time of voting for the merger and the trading day immediately preceding the date of the merger. Please disclose any negotiations for downside protection or the reason for no such negotiations.

26. We note that a representative of Citigroup Global Markets Inc. arranged and attended the July 13, 2004 dinner meeting between Messrs. Dauwalter and Zadel and that Citigroup was not yet retained by either party. Please clarify Citigroup's role at this meeting. Disclose which party first initiated contact with Citigroup.

27. We note that in October 2004, Entegris retained Goldman, Sachs & Co. as its financial advisor and that Entegris and Goldman agreed that Goldman would assist Entegris in evaluating three possible alternative strategic business combinations. Please describe the alternatives presented and why Entegris chose the combination with Mykrolis over the others. Supplementally, confirm that no offers were made to combine with Entegris or disclose the amount and form of consideration offered and the reasons for rejecting the offer.

28. Please describe the other strategic alternatives that Mykrolis considered and disclose why it chose to merge with Entegris rather than peruse these alternatives. Please clarify the "lack of compelling product synergies."

29. Please describe how the parties negotiated the exchange ratio.

30. We note your statement that Mykrolis engaged Citigroup as its financial advisor to assist it in connection with the evaluation

of strategic alternatives. However, please clarify that Citigroup's opinion was limited to the fairness of the exchange ratio and did not consider alternative combinations.

31. Please provide for staff review all materials prepared by Goldman, and Citigroup provided to Entegris, Mykrolis or their representatives. Provide all transcripts, summaries and video presentation materials as well as copies of board books. We may have further comments upon reviewing these materials.

Recommendation of Mykrolis` Board of Directors; Mykrolis` Reasons for the Merger, page 44

32. Please disclose whether the fact that any portion of the merger consideration paid in cash could be taxable to holders was considered as a risk of the transaction.

Opinion of Entegris` Financial Advisor, page 46

33. Please disclose whether Goldman has provided past services to Entegris and, if so, how much they were paid in the past two years.

We note your disclosure in the third full paragraph on page 53. Please refer to Item 4(b) of Form S-4 and Item 1015 of Regulation M-A.

34. Please disclose the basis for Goldman's assumption that the financial analyses and forecasts relating to the companies were reasonably prepared and reflected the best currently available estimates and judgments of management. Please apply this to your disclosure on page 54 regarding Citigroup's opinion.

35. Please disclose how stockholders are to evaluate the results of each analysis in connection with your determination that the merger consideration is fair. For example, how should stockholders evaluate a 1.7 X NTM revenue multiple and how should they evaluate results where the merger consideration is lower in some instances than the implied ratios or values. As part of this, compare the results of your analyses to the per share consideration that will be given in the merger.

Opinion of Mykrolis` Financial Advisor, page 53

36. We note that Citigroup and its affiliates in the past have provided services to Mykrolis and Entegris unrelated to the proposed merger. Please disclose how much has been paid to Citigroup in the past two years. . Please refer to Item 4(b) of Form S-4 and Item 1015 of Regulation M-A.

37. With respect to the other analyses and information that you state Citigroup conducted in the second paragraph on page 54, please either describe these or delete the reference.

Material U.S. Federal Income Tax Consequences, page 74

38. Please explain how this merger qualifies for treatment as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code of 1986. Please briefly explain the conditions of Section 368(a).

39. Please revise the last paragraph to state counsels` opinions regarding taxation of the merger.

Pro Forma Condensed Combined Financial Statements

Note 1 -- Basis of Presentation

## Experts

40. We note your reference to the independent valuation specialists. Please name these experts and provide their consents as required by Section 436(b) of Regulation C or delete your reference to them.

41. Please expand your disclosures to describe the nature of the developed technology intangible asset you acquired from Mykrolis.

42. We note that you have currently allocated \$313 million of the total estimated purchase price to goodwill. Expand your disclosures to provide a description of the factors that contributed to this very significant portion of the purchase price being allocated to goodwill.

## Note 3 - Deferred Stock-Based Compensation

43. You indicate that the deferred compensation "...represents the estimated intrinsic value of the unvested Mykrolis stock options assumed and the issuance of restricted stock." We have the following comments regarding this disclosure.

\* We assume you have determined the deferred compensation related to the intrinsic value of the Entegris stock options issued (i.e. the replacement awards) in exchange for the Mykrolis stock options. Please revise your disclosure to clarify.

\* Separately disclose the intrinsic value of the unvested Entegris stock and indicate that this amount is included in your purchase price allocation. Separately disclose the value of your restricted stock and address your accounting for the restricted stock. Please advise or revise your pro formas accordingly.

## Exhibits

44. Note that we may have comments on the tax and legality opinions and other exhibits and related disclosure once they are filed. Please allow adequate time for our review before requesting effectiveness of the registration statement.

## Closing Comments

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

? should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;

? the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and

? the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Mindy Hooker at (202) 551-3732 or John Cash at (202) 551-3768 if you have questions regarding comments on the financial statements and related matters. Please contact Craig Slivka at (202) 555-3729 or the undersigned Branch Chief who supervised review of your filings at (202) 551-3767, with any other questions.

Sincerely,

Jennifer Hardy  
Branch Chief

cc: Douglas P. Long, Esq.  
Fax: (612) 766-1600

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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549-0404

DIVISION OF  
CORPORATION FINANCE

