

Comment #	Section	Question asked to reviewer to address	Comment/Response	Response to Comment
1	1.1	<p>Question #2: Does this Dermal Resource Guide provide sufficiently transparent descriptions about: 1) background, purposes, intended use, topic areas (Chapter 1); 2) criteria for selection of resources and format (Chapter 2), and 3) overall information availability?</p>	<p>On page 1-1 there is a statement that says, "Many chemical readily pass through the skin (this is called dermal absorption)." This is somewhat inaccurate-when chemicals pass through the skin this is called dermal penetration. When the chemical is taken up in the blood stream or by skin or immune cells this is called absorption. It is a minor point but there is a difference between something that penetrates the skin and something that penetrates and is absorbed by the body, especially if we are talking about possibilities of systemic health effects in the next line.</p>	<p>This section has been modified to reflect the difference between penetration and absorption.</p>
2	General	<p>Question #3: Are there any critical documents or resources which have been overlooked? Similarly, are there any documents which are inappropriate or inadequate for inclusion in the document? Please help to identify specific documents or resources which should either be added or deleted.</p>	<p>Some primary articles are too specific. Examples are references nr. 72 and 179</p>	<p>Response taken into consideration, but no change made</p>
3	General	<p>Question #4: The Dermal Resource Guide contains information published through late 2005 to early 2006. If you are aware of a critical study that has been published in 2006 or 2007 that should be included in the Dermal Resource Guide, please include the reference within your comments and review.</p>	<p>More comprehensive search is needed for this, but this is one of them: Van de Sandt JJ, Dellarco M, Van Hemmen JJ. From dermal exposure to internal dose. J Expo Sci Environ Epidemiol. 2007 Apr 18; [Epub ahead of print]</p>	<p>Response taken into consideration, but no change made</p>

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4	General	<p>Question #1: Is this Dermal Resource Guide appropriate as a tool to direct the general audience (including workers and employers) and the professional audience (including industrial hygienists, researchers, and policy makers) to the informational resources for occupational skin exposures?</p>	<p>This is so far the most comprehensive and informative skin exposure resource guide I have ever seen. From personal experience, workers encounter more skin-related health problems than other health problems such as respiratory diseases. This Guide is good in that it provides easy-to-understand information for employers and workers as an educational tool and resource guide. Often workers call us to ask questions because it is hard for them to find pieces here and there from the Internet. With this Guide, workers and employers can find a convenient tool that links with many other available resources. The general audience can find specific type of information they are looking for easily. It is therefore a useful tool to workers and employers.</p>	No respond required
5	General	<p>Question #2: Does this Dermal Resource Guide provide sufficiently transparent descriptions about: 1) background, purposes, intended use, topic areas (Chapter1); 2) criteria for selection of resources and format (Chapter 2), and 3) overall information availability?</p>	<p>The front page "Quick guide to dermal resource guide use" is well prepared and easy to use. The background, purposes, intended use and topic areas are clearly described and informative.</p>	No respond required

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6	Table 3a	<p>Question #2: Does this Dermal Resource Guide provide sufficiently transparent descriptions about: 1)background, purposes, intended use, topic areas (Chapter1); 2) criteria for selection of resources and format (Chapter 2), and 3) overall information availability?</p>	<p>My main concern has to do with the orders of topic areas. I would suggest the following orders: For general audience: Table 3A. Overview of Exposures of the Skin to Chemicals; Table 3B. Hazard Identification; Table 3C. Characterization of Exposure Condition (Exposure Characterization); Table 3D. Risk Assessment – Evaluating for the presence of Harmful Chemicals; Table 3E. Risk Management – Reduction of Skin Exposure Risk</p>	<p>Response taken into consideration. The authors decided that the current presentation is acceptable. No additional action taken.</p>
7	Table 4a	<p>Question #2: Does this Dermal Resource Guide provide sufficiently transparent descriptions about: 1)background, purposes, intended use, topic areas (Chapter1); 2) criteria for selection of resources and format (Chapter 2), and 3) overall information availability?</p>	<p>My main concern has to do with the orders of topic areas. I would suggest the following orders: For professional audience: Table 4A. Overview of the Investigation and Control of Occupational Skin Exposures; Table 4B. Hazard Identification from Toxicological Studies or Modeling and Clinical Aspects; Table 4C. Exposure Characterization; Table 4D. Surveillance; Table 4E. Risk Assessment; Table 4F. Risk Management</p>	<p>Response taken into consideration. The authors decided that the current presentation is acceptable. No additional action taken.</p>

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8	General	<p>Question #2: Does this Dermal Resource Guide provide sufficiently transparent descriptions about: 1)background, purposes, intended use, topic areas (Chapter1); 2) criteria for selection of resources and format (Chapter 2), and 3) overall information availability?</p>	<p>Some minor specific comments: 1) "Quick guide to.....guide use" page at Step 3, change "Author and/or title" to "title and author" to match with the table. 2) Similarly, rearrange the order of content for the 3-4 lines in the first paragraph of Introduction.3) "1.1 Background" mentioned contact dermatitis as local effects and skin absorption to cause systemic effects. It could also mention allergy and sensitization that could lead to respiratory problems such as isocyanates asthma.</p>	<p>These formatting issues have been addressed during editing; Although the reviewer is correct about his statement of allergy and sensitization associated with isocyanates, we intended this section to be less specific and provide an overview of the impact of the dermal health effects associated with chemical exposures of the skin. No additional action taken.</p>
9	Chapter 2	<p>Question #2: Does this Dermal Resource Guide provide sufficiently transparent descriptions about: 1)background, purposes, intended use, topic areas (Chapter1); 2) criteria for selection of resources and format (Chapter 2), and 3) overall information avail</p>	<p>Criteria for selection of resources and format (Chapter 2)? The focus on review articles was good because this way it gives the summary information rather than individual research. It is ok to have selected literature published in recent 10 years, but ideally I would have tried to find references 15 years old or more.</p>	<p>Conducting a new literature search to include literature 15 years or older would result in rewriting the entire document. The 10 year cutoff deadline was believed to represent a reasonable time frame for identifying relevant literature and key resources. No additional action required</p>

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10	General	<p>Question #2: Does this Dermal Resource Guide provide sufficiently transparent descriptions about: 1)background, purposes, intended use, topic areas (Chapter1); 2) criteria for selection of resources and format (Chapter 2), and 3) overall information availability?</p>	<p>Overall information availability; Overall information is rich and well categorized. For the general audience in Risk management, it would be good to have a category on "how to comply with regulations" such as OSHA personal protective equipment standard.</p>	<p>Taken into consideration. No action taken.</p>
11	General	<p>Question #3: Are there any critical documents or resources which have been overlooked? Similarly, are there any documents which are inappropriate or inadequate for inclusion in the document? Please help to identify specific documents or resources which should either be added or deleted.</p>	<p>Nothing significantly overlooked, inadequate or inappropriate was identified. A couple of documents were not found in the summary and thought they could be included: 1)A recent review on isocyanates: Bello D, Herrick CA, Smith TJ, Woskie SR, Cullen MR, Liu Y, Redlich CR. Skin exposure to isocyanates: reasons for concern. Environmental Health Perspective 2007;115(3):328-335 (review) and 2) A book chapter on skin exposure by Mark Boeniger and Jennifer Sahmel in the AIHA's exposure assessment book. Details could be obtained from Mark Boeniger or AIHA.</p>	<p>Bello [2007] and the AIHA book both were published after the cutoff date used by the contractors within the literature search; inclusion of these references would result in conducting a new literature search and postpone the release of this document; This document will be revisited in the future and updated version will be developed including these documents and any other new informational resources; No additional action taken.</p>

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12	General	<p>Question #4: The Dermal Resource Guide contains information published through late 2005 to early 2006. If you are aware of a critical study that has been published in 2006 or 2007 that should be included in the Dermal Resource Guide, please include the reference within your comments and review.</p>	<p>Not sure if you meant a specific research study, a study with meta analysis nature or a review article, but here is one from our group that addresses exposure assessment and evaluation on factors affecting exposures and sampling methodologies: Liu Y, Bello D, Sparer JA, Stowe MH, Gore RJ, Woskie SR, Cullen MR, Redlich CA. Skin exposure to aliphatic polyisocyanates in the auto body repair and refinishing industry: a qualitative assessment. <i>Annals of Occupational Hygiene</i> 2007;doi: 10.1093/annhyg/mem021.</p>	<p>Please see response for Comment #11.</p>
13	General	<p>Question #1: Is this Dermal Resource Guide appropriate as a tool to direct the general audience (including workers and employers) and the professional audience (including industrial hygienists, researchers, and policy makers) to the information resources for occupational skin exposures?</p>	<p>First it is a nice compilation of resources on dermal exposure issues; it has undergone lots of work and review but none from a dermatologist at least it appears from the outset. The title indicates that it covers all aspects of occupational dermatology; but apparently it is limited to dermal exposure and not all aspects of occupational dermatology- biological, physical, mechanical and chemical hazards? When addressing chemicals excluding contact dermatitis - which accounts for 95 percent of occupational skin diseases, seems inappropriate- if that's what you intend. Maybe you intend for it to include those areas and this should be clarified. I would include all of occupational dermatology</p>	<p>The name has been modified to emphasis that the document is intended to be a Resource Guide on issues associated with chemical hazards. No additional actions taken.</p>

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14	General	<p>Question #1: Is this Dermal Resource Guide appropriate as a tool to direct the general audience (including workers and employers) and the professional audience (including industrial hygienists, researchers, and policy makers) to the informational resources for occupational skin exposures?</p>	<p>Second: it is not user friendly. It looks like a computer print out with some italicized words; there needs to be a review of the hierarchical outline with bold, capital type etc. I did not view the cd so I cannot comment on it. Will be glad to do so if you wish.</p>	<p>The electronic version of this document that will be made available via the NIOSH web site will include hyperlinks to help readers locate specific resources. The links will be included for each reference listed within each of the various tables throughout the document. When used, the links will take readers the appropriate reference in Appendix A.</p>
15	General	<p>Question #1: Is this Dermal Resource Guide appropriate as a tool to direct the general audience (including workers and employers) and the professional audience (including industrial hygienists, researchers, and policy makers) to the informational resources for occupational skin exposures?</p>	<p>Third: The intro indicates that it was culled from 600 plus to about 200 plus citations-but 600 plus are included in the material sent for review. What were the criteria for paring? Were the non-peer-reviewed sources reviewed?</p>	<p>The search criteria are discussed in detail within Chapter 2.1: Criteria for Selection of Resources. No additional action taken.</p>

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17	General	<p>Question #3: Are there any critical documents or resources which have been overlooked? Similarly, are there any documents which are inappropriate or inadequate for inclusion in the document? Please help to identify specific documents or resources which should either be added or deleted.</p>	<p>Is the NIOSHTic data base listed? An alphabetical and categorical listing would help for review; going through 600 plus sources without an index is not ideal.</p>	<p>NIOSHTIC-2 was used to help generate the list of references and resources. Please see response for Comment #14.</p>

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18	General	<p>Question #4: The Dermal Resource Guide contains information published through late 2005 to early 2006. If you are aware of a critical study that has been published in 2006 or 2007 that should be included in the Dermal Resource Guide, please include the reference within your comments and review.</p>	<p>Again see three above. I would be glad to review a computer print out of publications for 2006-7 if you send it and check them off. There are internet resources for medicine that are compiled- I'll try to get the name of the one which I cannot locate. I would list the web sites for journals and list the journals and texts, etc- in a chapter in Occupational Irritant Dermatitis by H. I. Maibach about 2 years ago I wrote a chapter on information resources- you could use that format. I would also search the term information resources in occupational medicine and dermatology; Although the guide provides some valuable information on both risk and hazard associated with dermal exposure in the workplace I am not convinced that this is the best way how to use research information and find the information resources for occupational skin exposure. The essential questions of general public and professionals are: 1) where do I go to find the information, 2) is all information equally useful, and 3) how do I apply this knowledge in the practice. This guide addresses mainly the first issue and in this context the tables with books/brochures/guidelines/websites in this guide might be useful. However, the guide (continued)</p>	<p>Please see response for Comment #14.</p>

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			<p>does not provide an index which makes searching for a particular question impossible. The main topics addressed in this guide are very logical from a mechanistic point of view but for the end user this conceptual approach is of no or of little practical use. In general, occupational professionals and workers are confronted with a particular problem e.g. what is the risk of dermal exposure to a specific organic solvent, which gloves should be used, which local effects can be expected etc? What the scientific articles (primary and reviews) concern, I see no added value of this guide above PubMed/ToxLine search. The articles are not evaluated on quality and because the guide will not be updated, relevant recent literature might be overlooked by the user of the guide. Secondly, without an index searching is impossible.</p>	