Miller, Diane M. (CDC/NIOSH/EID)

From: Dragon, Karen E. (CDC/NIOSH/EID)
Sent: Monday, November 24, 2008 9:33 AM
To: Miller, Diane M. (CDC/NIOSH/EID)
Subject: FW: Peer Review Invitation for a NIOSH Current Intelligence Bulletin: A Strategy for Assigning the New NIOSH Skin Notations for Chemicals
Attachments: Review comments for NIOSH new skin notation.doc

Here is the one from Scott.

From: Dotson, G. Scott (CDC/NIOSH/EID)
Sent: Monday, November 24, 2008 8:39 AM
To: Dragon, Karen E. (CDC/NIOSH/EID); Reuss, Vicki A. (CDC/NIOSH/EID)
Subject: FW: Peer Review Invitation for a NIOSH Current Intelligence Bulletin: A Strategy for Assigning the New NIOSH Skin Notations for Chemicals

Karen or Vicki:

Can you put this into docket 153

Thanks, Scott

G. Scott Dotson, Ph.D., M.Sc.
Senior Service Fellow-Industrial Hygienist
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health
Education and Information Division
4676 Columbia Parkway, MS C-32
Cincinnati, Ohio 45226-1998
Phone: (513) 533-8540
Fax: (513) 533-8230

From:
Sent: Friday, November 21, 2008 4:55 PM
To: Niemeier, Richard W. (CDC/NIOSH/EID); Dotson, G. Scott (CDC/NIOSH/EID)
Subject: RE: Peer Review Invitation for a NIOSH Current Intelligence Bulletin: A Strategy for Assigning the New NIOSH Skin Notations for Chemicals

Dear Dr. Dotson and Dr. Niemeier,

Attached are my comments on the NIOSH new skin notation strategy. I believe it is well done. I am also most appreciative of your work on this as it is certainly to have a long and profound positive effect on the prevention of skin exposure-related diseases. My comments may not be correct and you do not have to take them.

Thanks again for the review opportunity. Hope this is of some help.

Sincerely,

From: Niemeier, Richard W. (CDC/NIOSH/EID) [mailto:rwn1@CDC.GOV]
Sent: Friday, September 26, 2008 9:13 AM
To:
Subject: Peer Review Invitation for a NIOSH Current Intelligence Bulletin: A Strategy for Assigning the New NIOSH Skin Notations for Chemicals

Dear Dr.

The National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention (NIOSH, CDC) is conducting an external peer review of the NIOSH document entitled *NIOSH Current Intelligence Bulletin: A Strategy for Assigning the New NIOSH Skin Notations for Chemicals*. The objective of the CIB is to provide the scientific rationale and framework for the assignment of skin notations that reflect the current state of knowledge about chemical hazards associated with dermal exposures. The document is posted on the NIOSH website at http://www.cdc.gov/niosh/review/public/ 153

As an expert in the field, we are requesting your participation in the review process. The charge to the peer reviewers is to determine whether:

- the rationale and framework presented within the CIB is scientifically valid,
- the skin notation classifications are appropriate, and
- the conclusions that form the basis of the recommendations are appropriate.

Please let me know as soon as possible if you willing, or unable, to accept this invitation to participate as an official scientific peer reviewer. The complete package of instructions, including detailed questions, and the document will be emailed to you after you respond to me. For your convenience, all comments and other documents can be submitted to the NIOSH docket (#109) by email, fax or regular posted mail. The Federal Register notice is attached.

The public review period will occur until Friday, November 7, 2008. A public meeting will be held on Thursday, November 6, 2008 from 9:00 a.m. to 4:00 p.m. at the NIOSH Robert A. Taft Laboratory Auditorium in Cincinnati, Ohio, as a forum for scientists and representatives of government agencies, industry, labor and other stakeholders to discuss the document. The meeting will be open to the public. You are invited to attend this meeting with expenses being paid by NIOSH. Whether you attend the meeting or not, copies of the public comments will be made available to you on CD for consideration in your comments which will be due to the NIOSH Docket Office on Friday, November 21, 2008.

In order to comply with the new CDC/NIOSH data quality requirements for the review of NIOSH publications, a Conflict of Interest form will be provided for you to review and sign. In addition, an up-to-date curriculum vitae (CV) will also be required. Please be aware that your name, affiliation, and CV will

be posted on the NIOSH /CDC website along with a peer review report containing the peer review comments, without individual attribution, and the NIOSH response to each comment.

We greatly appreciate your consideration to review of this document and look forward to obtaining your comments. If you have questions regarding the document, please contact Dr. Richard Niemeier at (513) 533-8388 or RNiemeier@cdc.gov. Thank you for your assistance in this important review process.

Sincerely,

Richard W. Niemeier, Ph.D.
Senior Scientist/Toxicologist
Associate Director for Science
Education and Information Division
NIOSH
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Cincinnati, OH 45226
Phone: (513) 533-8388
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email: rwn1@cdc.gov

<<Skin Notaion CIB FR notice.pdf>>

Review Comments on

NIOSH Current Intelligence Bulletin (CIB):
A Strategy for Assigning the New NIOSH Skin Notations for Chemicals

Reviewer:

November 21, 2008

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1. Is the rationale and framework presented within the CIB scientifically valid?

1) I agree the old skin notation has significant limitations and a new, more informative and comprehensive and scientifically based skin notation system is long overdue.

Exposure to workplace chemicals may cause occupational skin diseases such as contact or allergic dermatitis, which are the most commonly reported non-fatal occupational illnesses. Data shows that skin diseases account for 15.6% in 2004 and 16.5% in 2005, the largest percentage among those for other occupational illnesses. Despite the high incidence rate, skin exposure to various chemicals is not well characterized and health effects and mechanisms not well understood, and exposure methodologies not well developed and standardized which limits the prevention of these skin-exposure related diseases. However, in recent years, skin exposures, assessment methodologies and their potential health risks have received more attention and better understanding as well as more research which improves our knowledge and allow the development of a new and more informative skin notation that will benefit the employers and employees and facilitate the hazard communications and prevention of skin diseases and disorders.

The old NIOSH skin notation is an important tool to alert the safety and health community of the potential skin exposure and health risk of a chemical, but the original definition focusing the mechanism on skin absorption only and implying systemic health effects as the only effect is inaccurate, not informative and oversimplified. The notation needs updating and upgrading based on current knowledge. A new and more informative skin notation system is long overdue and well needed.

2) I think the proposed new skin notation (system) is more comprehensive, more informative, more scientifically based and more updated.

The frame work in the new skin notation assignment method is 1) based on standardized literature review on current knowledge and therefore up to date; 2) more comprehensive including different types of potential risks and chemical reaction mechanisms and therefore more informative; 3) more scientifically sound and valid by reviewing the literature including both animal and human data and both potential health risk and physiochemical properties.

2. Are the skin notation classifications appropriate?

As described above, the classification is more inclusive and informative than the original skin notation. It distinguishes among systemic toxic effect, local direct contact effect and sensitization effect. In the type of systemic effects, it signifies the most serious effects – the acute toxicity (fatal versus non fatal); and in the type of direct contact, it distinguishes simple irritation versus corrosion. It adds the sensitization category which is good for protecting those susceptible workers. The use of combined symbols allow the expression of multiple effects to be noted and is appropriate to me.

3. **Are the conclusions that form the basis of the recommendations are appropriate?**

Appropriate.

4. **Specific comments:**

1) Eor the symbols and effect categories, the only thing I was thinking of is how to denote the potential chronic/long term and carcinogenic effects. Do we need another symbol (category), say CAN or CAR, for skin carcinogens (carcinogenic effects)? I would suggest so.
2) If data are not conclusive on potential health effects, I would suggest not using any of the symbols because the symbol is there to alert; if nothing to be concerned, why to alert? So if no data or data inconclusive, not assignment is made. A special symbol in this case may cause confusion to people (try to figure out the proper meaning of it).
3) On Executive Summary Page viii, Line 18, add "s" to "indicate".
4) Specify how often the notations are to be updated and what chemicals are included.
5) A skin notation is not to be assigned based on mathematical modeling only; Specify the rationale for selecting chemicals to assign the skin notation.
6) Since the notations are intended to harmonize with those by the international organizations, it is important to obtain the feedback from the international safety and health community, particularly from those in the Europe where skin exposure research has been more extensively conducted.