Review: NIOSH Skin Notations Review - Group A

Profile Number: 21

Profile Title: 2-Ethoxyethanol (EE)

Summary

Both reviewers agreed that the document clearly outlines the systemic health hazards, direct health hazards, and immune-mediated responses associated with exposures of the skin to 2-Ethoxyethanol. Both reviewers agreed with the scientific rationale behind the skin notation assignments. Only minor suggested revisions were given (see below).

Recommendations

- The data from Kezic et al. expressed as cm/h is not an absorption rate, but rather a permeability coefficient. (Q1, Reviewer 1)
- Suggest deleting, "therefore, EE is considered to be absorbed through the skin following dermal exposure." (Q1, Reviewer 1)
- Clarification of the paragraph on page 3 starting, "Dermal repeated-dose toxicity studies..." might improve understanding by the reader. (Q1, Reviewer 1)

Suggested additional scientific data to review:

The relevant GHS designations in Europe are:

Repro 1B H360FD Acute Tox 4 H312 (Q12, Reviewer 1)

Verbatim Reviewer Comments

1. Does this document clearly outline the systemic health hazards associated with exposures of the skin to the chemical? If not, what specific information is missing from the document?

Reviewer 1:

Yes, I agree with the SYS designation. Minor comments below.

The data from Kezic et al expressed as cm/h is not an absorption rate (although I know this is how they describes it), but rather a permeability coefficient.

Suggest deleting "therefore, EE is considered to be absorbed through the skin following dermal exposure"

I found the paragraph on page 3 starting "Dermal repeated-dose toxicity studies..." difficult to understand – some clarification would be helpful.

Reviewer 2:

This document clearly outlines the systemic health hazards associated with exposures of the skin to 2-Ethoxyethanol. No specific information is missing from the document.

2. If the SYS or SYS (FATAL) notations are assigned, is the rationale and logic behind the assignment clear? If not assigned, is the logic clear why it was not (e.g., insufficient data, no identified health hazard)?

Reviewer 1:

Yes, clear

Reviewer 2:

Based on evaluation of data 2-Ethoxyethanol has been assigned SYS notation. The rationale and logic behind this assignment for 2-Ethoxyethanol is clear.

3. Does this document clearly outline the direct (localized) health hazards associated with exposures of the skin to the chemical? If not, what specific information is missing from the document?

Reviewer 1:

Yes

For "European Economic Community (EEC)" just say European.

Reviewer 2:

This document clearly outlined the direct health hazards associated with exposures of the skin to 2-Ethoxyethanol and based on well presented analysis 2-Ethoxyethanol is not assigned DIR notation.

4. If the DIR, DIR (IRR), or DIR (COR) notations are assigned, is the rationale and logic behind the assignment clear? If not assigned, is the logic clear why it was not (e.g., insufficient data, no identified health hazard)?

Reviewer 1:

No designation assigned, which seems appropriate.

Reviewer 2:

DIR, DIR (IRR), or DIR (COR) notations to 2-Ethoxyethanol are not assigned. The logic and rationale for this is clear.

5. Does this document clearly outline the immune-mediated responses (allergic response) health hazards associated with exposures of the skin to the chemical? If not, what specific information is missing from the document?

Reviewer 1:

Yes

Reviewer 2:

This document clearly outlined immune-mediated responses heath hazards associated with exposures of the skin to 2-Ethoxyethanol. Based on the information presented 2-Ethoxyethanol is not assigned SEN notation. This is clear in the document.

6. If the SEN notation is assigned, is the rationale and logic behind the assignment clear? If not assigned, is the logic clear why it was not (e.g., insufficient data, no identified health hazard)?
Reviewer 1: Not assigned, which is appropriate.
Reviewer 2: SEN notation is not assigned and the reasoning for this is clear in the document.
7. If the ID ^(SK) or SK were assigned, is the rationale and logic outlined within the document?
Reviewer 1: N/A
Reviewer 2: This is not assigned.
8. Are the conclusions supported by the data?
Reviewer 1: Yes
Reviewer 2: The conclusions reached in the document are supported by the data which is critically analyzed.
9. Are the tables clear and appropriate?
Reviewer 1: Yes
Reviewer 2: Tables are clear and appropriate.
10. Is the document organized appropriately? If not, what improvements are needed?
Reviewer 1: Yes
Reviewer 2: The document is organized appropriately.
11. Is the language of the manuscript acceptable as written? If not, what improvements are needed?
Reviewer 1: Yes
Reviewer 2: The language of the document as written is acceptable.

12. Are you aware of any scientific data reported in governmental publications, databases, peer reviewed journals, or other sources that should be included within this document?

Reviewer 1:

The relevant GHS designations in Europe are:

Repro 1B H360FD Acute Tox 4 H312

Reviewer 2:

I am not aware of any pertinent information that should be included.

13. What is your final recommendation for this manuscript? (Do you agree with the scientific rationale that serves as a basis for the skin notation assignments?)

Reviewer 1:

These recommendations are appropriate.

Reviewer 2:

I recommend that this document should be accepted as presented.