



Centers for Disease Control and Prevention
National Institute for Occupational
Safety and Health
1090 Tusculum Avenue
Cincinnati OH 45226-1998

July 16, 2014

The Health Council of the Netherlands
Attn: Dr. G.B. van der Voet
PO Box 16052
NL-2500 BB The Hague
The Netherlands

Dear Dr. G.B. van der Voet:

Thank you for the opportunity to review the draft report on *Dimethyl sulphate* prepared by the Dutch Expert Committee on Occupational Safety (DECOS), a Committee of the Health Council of the Netherlands.

If you have any questions regarding the comments, please contact me at 513-533-8260 (telephone) or by Email at tbl7@cdc.gov.

Sincerely yours,

A handwritten signature in black ink, appearing to read "J. Lentz".

Thomas J. Lentz, Ph.D., M.P.H.
Branch Chief
Document Development Branch
Education and Information Division

1 Enclosure

**NIOSH review comments on Dimethyl sulphate from Patti Erdely, Ph.D,
NIOSH/HELD, 1095 Willowdale Rd., Morgantown, WV 26505;
Appavoo (Samy) Rengasamy Ph.D., NIOSH/NPPTL, 626 Cochran Mill Rd.,
Pittsburgh, PA 15236; and Robert Streicher, Ph.D., NIOSH/DART,
1090 Tusculum Ave., Cincinnati, OH 45226**

SECTION & PARAGRAPH	COMMENT
General Comments	All relevant critical studies have been included and are presented in sufficient detail except for minor suggestions (see below). The limitations of the critical studies have been presented adequately. It is this reviewer's opinion that the interpretation of the limited non-guideline animal data is correct. Units need to be checked throughout the document.
Specific Comments	
Section 1, Para 2	Sentence related to disposal of the chemical should be deleted from the executive summary. Add text related to guidance value to executive summary.
Section 3.2, Para 5	Add text or put in table 2 legend if the observed increased tumor incidence in animals was statistically observed or not and how (could be addressed in the critical study limitations).
Section 3.2, Para 5	Add text for clarity to indicate that the observed incidence was in animals only surviving to end of study period.
Section 3.3, Para 3	Add text to clarify the statement that dimethyl sulphate is "a potent carcinogen."
Section 2.1	In table, it says "Relative density (air = 1)". This should say "Relative density (water = 1)".
Section 2.1, Para 1 Page 7, line 3	Dimethyl sulphate is mainly used as a chemical intermediate. It is not clear what "chemical intermediate" means here.
Section 2.4, Para 2 Page 8, line 33	Dimethyl sulphate is toxic after oral administration and very toxic after inhalation. The toxicity by one method over the other method cannot be compared, because oral administration happens one time as opposed to inhalation exposure over 4 hours.
Section 2.4, Para 4 Page 9, line 7	NOAEL (No observable adverse effect level?) can be expanded first time.
Section 2.4, Para 5 Page 9, line 11	Exposure route can be incorporated unless NOAEL refers to only inhalation route.
Section 2.4, Para 5 Page 9, line 15	"at 1-25 hours after mating" can be deleted.
Section 3.2, Para 2 Page 11, Line 32	Druckrey et al. . . . 55 mg/m ³ For clarity, please describe the exposures in one sentence and the effects in another sentence.
Section 8.5, Para 4	The conclusion that "this chemical is mutagenic" may be misleading, owing to its rapid hydrolysis.
Annex G	Category (4) "Te" should be "The"