

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

INTEROFFICE COMMUNICATION

November 12, 1992

TO: FILE

FROM: Mary Lee Hultin

SUBJECT: Screening Level for methylvinyl bis-(N-methylacetamido) silane CAS # 50791-87-2

The data provided by Dow Corning provides a rat oral LD50 value of 1.66 ± 0.09 g/kg body weight for male rats. The data is less than ideal primarily because there were only 2 rats used per dose. However, 7 doses were used with a dose-related response seen and the data was otherwise valid. To account for the deficiency in the number of animals used per dose, the highest dose at which no mortality was observed - 1.4 g/kg - will be used in the calculation of the screening level. This value will serve as somewhat of a "surrogate" LD50.

The weight of animals provided by Dow = 250 g. The inhalation rate used will be 0.256 based on the allometric equation provided in Table 3 of the "Default Biological Values for Use in Risk Assessment, Hazard Assessment and Dose Conversion," 10/14/91.

$$\text{Inhalation rate} = 0.80 (0.25^{0.8206}) = 0.2564718$$

Based on Rule 232(h):

$$\text{ITSL} = \frac{1}{500} \times \frac{1}{40} \times \frac{1}{100} \times \frac{1400 \text{ mg/kg} \times 0.25 \text{ kg}}{0.167 \times 0.256} = 0.004 \text{ mg/m}^3$$

= 4.0 $\mu\text{g/m}^3$
Based on annual averaging

MLH:ma