

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

INTEROFFICE COMMUNICATION

MAY 25, 1994

TO: File for dl-alpha Phenylethylamine (98-84-0)
FROM: Marco Bianchi
SUBJECT: Initial Threshold Screening Level

The initial threshold screening level (ITSL) for dl-alpha phenylethylamine is $3 \mu\text{g}/\text{m}^3$ based on an annual averaging time.

The following references or databases were searched to identify data to determine the ITSL: IRIS, HEAST, NTP Management Status Report, RTECS, EPB-CCD, EPB library, CAS-online, NLM-online, IARC, NIOSH Pocket Guide, and ACGIH Guide.

A complete reference check was conducted for dl-alpha phenylethylamine, but only limited information was available. In a study conducted by Smyth et al., groups of 5 male or female Carworth-Wistar rats were given a single oral dose in a logarithmic series by gastric intubation. The animals were observed for 14 days, and the LD_{50} value was estimated by the method of Thompson using the tables of Weil. The LD_{50} was determined to be 940 mg/kg for dl-alpha phenylethylamine.

The ITSL was derived as follows:

$\text{LD}_{50} = 940 \text{ mg/kg}$

$$\text{ITSL} = \frac{1}{500} \times \frac{1}{40} \times \frac{1}{100} \times \frac{940}{0.167 \times 0.931} = 0.003 \text{ mg}/\text{m}^3$$

$0.003 \text{ mg}/\text{m}^3 \times 1000 = 3 \mu\text{g}/\text{m}^3$ based on annual averaging.

The ITSL for dl-alpha phenylethylamine = $3 \mu\text{g}/\text{m}^3$ based on annual averaging.

References:

Smyth, H. et al., 1951. Range-Finding Toxicity Data List IV. AMA Archives of Industrial Hygiene and Occupational Health. 4:191-122.

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