

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

INTEROFFICE COMMUNICATION

APRIL 22, 1994

TO: File for 2-Diethylaminoethylamine (100-36-7)
FROM: Marco Bianchi
SUBJECT: Initial Threshold Screening Level

The initial threshold screening level (ITSL) for 2-diethylaminoethylamine is $9 \mu\text{g}/\text{m}^3$ 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 2-diethylaminoethylamine, but only limited information was available. A single dose oral toxicity study using male or female rats resulted in an LD_{50} of 2830 mg/kg. In this study, groups of rats were given a logarithmic series of single doses and observed for 14 days. The LD_{50} value was estimated by the method of Thompson using the tables of Weil.

The ITSL was derived as follows:

$\text{LD}_{50} = 2830 \text{ mg/kg}$

$$\text{ITSL} = \frac{1}{500} \times \frac{1}{40} \times \frac{1}{100} \times \frac{2830}{0.167 \times 0.900} = 0.009 \text{ mg}/\text{m}^3$$

$0.009 \text{ mg}/\text{m}^3 \times 1000 = 9 \mu\text{g}/\text{m}^3$ based on annual averaging.

The ITSL for 2-diethylaminoethylamine = $9 \mu\text{g}/\text{m}^3$ based on annual averaging.

References:

Smyth, F. et. al., 1954. Range-Finding Toxicity Data List V. AMA Archives of Industrial Hygiene and Occupational Health. 10:61-68.

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