

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

INTEROFFICE COMMUNICATION

October 21, 1994

TO: File for N-Methyl Taurine (107-68-6)  
FROM: Marco Bianchi  
SUBJECT: Initial Threshold Screening Level

The initial threshold screening level (ITSL) for n-methyl taurine is  $17 \mu\text{g}/\text{m}^3$  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 n-methyl taurine, but only limited information was available. Upjohn provided an in-house oral  $\text{LD}_{50}$  study for n-methyl taurine. A group of four male albino rats were given a single oral dose of 5000 mg/kg body weight of n-methyl taurine. Initial clinical signs included salivation, wetness and then dried red material around the mouth, diarrhea, and brown staining on the fur around the anogenital area. These signs continued until day two of post dosing. On day two post dosing, and thereafter for the rest of the 14-day study period, all four rats appeared normal and had body weights which exceeded their fasting body weights. Necropsy of all four rats at terminal euthanasia did not reveal any gross lesions. Although there were no deaths from compound administration at 5000 mg/kg, this value will be used as a surrogate to calculate an ITSL.

The ITSL was derived as follows:

The  $\text{LD}_{50}$  for this study was determined to be 5000 mg/kg.

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$\text{LD}_{50} = 5000 \text{ mg/kg}$

$$\text{ITSL} = \frac{1}{500} \times \frac{1}{40} \times \frac{1}{100} \times \frac{5000}{0.167 \times 0.900} = 0.0166 \text{ mg/kg}$$

$0.0166 \text{ mg/kg} \times 1000 = 17 \mu\text{g}/\text{m}^3$  based on annual averaging.

The ITSL for n-methyl taurine =  $17 \mu\text{g}/\text{m}^3$  based on annual averaging.

MB:ma