MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

October 28, 1998

TO: File for n-heptyl acetate (CAS #112-06-1)

FROM: Marco Bianchi, Toxics Unit, Air Quality Division

SUBJECT: Initial Threshold Screening Level

The Initial Threshold Screening Level (ITSL) for n-heptyl acetate is 16 ug/m^3 based on an annual averaging time. The following references or databases were searched to identify data to determine the ITSL/IRSL: 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-heptyl acetate, but only one study was available for review. In an acute rat toxicity summary report submitted to the Research Institute for Fragrance Materials, Inc., 10 rats (sex not listed) were orally dosed with 5 g/kg of n-heptyl acetate. No dose-related symptoms or adverse effects were noticed at any time during a 14-day observation period. The LD_{50} value for n-heptyl acetate was determined to be >5 g/kg.

The ITSL was determined as follows:

LD_{50} = >5 g/kg

LD_{50} = 5000 mg/kg

$$\text{ITSL} = \frac{1}{500} \times \frac{1}{40} \times \frac{1}{100} \times \frac{5000}{0.167 \times 0.931} = 0.0158 \text{ mg/m}^3$$

0.0158 mg/m^3 x 1000 = 15.8 ug/m^3 based on annual averaging.

The ITSL for n-heptyl acetate = 16 μg/m^3 based on annual averaging.

References:

1. Moreno, OM. 1974. Acute Oral Toxicity in Rats Dermal Toxicity in Rabbits. Report to: Research Institute for Fragrance Materials, Inc. MB Research Laboratories, Inc.

MB:SLB
cc: Mary Lee Hultin, AQD