MICHIGAN DEPARTMENT OF NATURAL RESOURCES

INTEROFFICE COMMUNICATION

April 27, 1994

TO: File for Isopar H (90622-57-4)

FROM: Marco Bianchi

SUBJECT: Initial Threshold Screening Level

The initial threshold screening level (ITSL) for Isopar H is 128 $\mu g/m^3$ 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 reference and database search for Isopar H provided no useful information to derive an ITSL. Exxon Chemical Co. did provide an in-house LC_{50} inhalation study. A total of 6 male Wistar rats/group were exposed for 4 hours to 590 and 975 ppm Isopar H solvent. The animals were observed for 14 days. One rat died exposed to 975 ppm. The LC_{50} was estimated to be greater than 975 ppm.

An ITSL was derived as follows:

LC_{50} = 975 ppm

$$mg/m^3 = \frac{975 \times 160 \text{ (M.W.)}}{24.45} = 6380 \text{ mg/m}^3$$

$$\text{ITSL} = \frac{\text{LC50}}{500 \times 100} = \frac{6380}{500 \times 100} = 0.128 \text{ mg/m3}$$

0.127 mg/m3 x 1000 = 128 μg/m3

ITSL for Isopar H = 128 $\mu g/m^3$ based on annual averaging.

MB:ma