MICHIGAN DEPARTMENT OF NATURAL RESOURCES

INTEROFFICE COMMUNICATION

May 16, 1995

TO: alpha-Hexachlorocyclohexane File (CAS # 319—84—6)

FROM: Gary Butterfield

SUBJECT: Screening level for alpha-hexachiorocyclohexane

The IRSL and SRSL for alpha-hexachlorocyclohexane or alpha-HCH is based on the inhalation potency value of 1.8E-3 per ($\mu g/m^3$) calculated by EPA and listed in IRIS. EPA based the inhalation potency on the oral potency. This verification date listed for this potency was 12/17/86. At this time, no additional data review or evaluation was conducted after the IRIS values were located, i.e. no other sources of toxicity information were looked at. Because the IRIS data was verified several years ago, if evaluation of the most recent data is required in the future, on-line searches and additional references should be checked. The potency in IRIS was derived from a mouse oral carcinogenicity study reported by Ito et al (1973). The mice developed a dose related increased incidence of hepatic nodules and hepatocellular carcinomas with diets of 0, 100, 250 and 500 ppm alpha-HCH. The potency derived from this study is found to be consistent with the potency from other mouse and rat studies.

The IRSL is being established at 0.0006 $\mu g/m^3$ and the SRSL at 0.006 $\mu g/m^3$, both of these are with annual averaging.

References:

EPA. 1995. IRIS database

Ito et al. 1973. Histologic and ultrastructural studies on the hepatocarcinogenicity of benzene hexachloride in mice. JNCI 51:817-826.

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