

Michigan Department of Natural Resources

Interoffice Communication

July 22, 1992

To : Diethylmalonate File (CAS # 105-53-3)

From : Gary Butterfield

Subject : ITSL for Diethylmalonate

A CAS-on-line search of available toxicity data through July 15, 1992 was not able to identify any toxicity studies suitable for calculation of an ITSL. RTECS listed an acute oral study for this material, Smyth et al (1969), who reported a rat LD50 of 15 g/kg. As this is the only available toxicity data, the ITSL will be based on the LD50 of 15 g/kg and calculated as follows,

$$\text{ITSL} = (15000 \text{ mg/kg}) \times (1/500 \times 1/40 \times 1/100 \times 1/.167 \times 1/.9) = 50 \text{ ug/m}^3$$

an annual average

Where the inhalation rate for rats was assumed to be 0.9 m³/kg as reported by EPA (1988).

Reference :

EPA. 1988. Recommendations for and documentation of biological values for use in risk assessment. PB88-179874.

Smith et al. 1969. Range-finding toxicity data: list VII. Am Ind Hyg Assoc J 30:470