

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

INTEROFFICE COMMUNICATION

July 29, 1993

To: File for Trimethyl orthoacetate (CAS # 1445-45-0)
From: Gary Butterfield
Subject: ITSL for trimethyl orthoacetate

A review of published literature (not listed in RTECS, IRIS, HEAST, or any other secondary references) was not able to find any toxicity data on trimethyl orthoacetate, which is also known as 1,1,1-trimethoxyethane. A May 14, 1993 CAS-on-line search did not find any English toxicity articles, and only one German article whose abstract indicated the information would not be useful for ITSL derivation.

The Upjohn Co. provided data on a one hour acute inhalation LC50 from studies they conducted. Five or six rats per dose level were exposed to nominal concentrations of 408, 166 or 16.2 g/m³. One hour exposure to 166 or 408 g/m³ caused 100% mortality. All rats survived exposure to 16.2 g/m³ for the 14-day observation period. A one hour LC50 was estimated by Upjohn to be 48 g/m³. Using this value in the equation from Rule 232(1)(g) results in an ITSL of 24 µg/m³ with annual averaging.