

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

TO: File for Methyltrichlorosilane (CAS # 75-79-6)

FROM: Robert Sills, AQD Toxics Unit Supervisor

SUBJECT: Methyltrichlorosilane ITSL Justification

DATE: December 22, 2016

The ITSL for methyltrichlorosilane is 109 ug/m^3 , with annual averaging time. This ITSL was established on September 13, 1989, based on an unpublished study (Dow Corning, 1989) reporting a 4-hr rat inhalation $\text{LC}_{50} = 888 \text{ ppm}$ (5431 mg/m^3). The ITSL (previously, in 1989, referred to as the Acceptable Ambient Concentration (AAC)) was derived as follows, consistent with Rule 232(1)(f):

$$\text{ITSL} = \frac{\text{LC}_{50}}{500 \times 100}$$

$$\text{ITSL} = \frac{5431\text{E}+3 \text{ ug/m}^3}{500 \times 100} = 108.6 \text{ ug/m}^3 \sim 109 \text{ ug/m}^3 \text{ (annual averaging time)}$$

Reference:

Dow Corning Corporation. 1989. The Acute Inhalation Toxicity of Methyltrichlorosilane in Rats. Unpublished report. April 7, 1989. Available in AQD Toxics Unit chemical file.