

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

July 2, 2001

TO: File for Methyl Methane Sulfonamide (CAS No. 1184-85-6)

FROM: Michael Depa, Toxics Unit, Air Quality Division

SUBJECT: Development of the Screening Level

The initial threshold screening level (ITSL) for methyl methane sulfonamide is 0.1 µg/m³ (annual averaging time).

The following references or databases were searched to identify data to determine the screening level: Environmental Protection Agency's (EPA's) Integrated Risk Information System (IRIS), the Registry of Toxic Effects of Chemical Substances (RTECS), the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLV), National Institute of Occupational Safety and Health (NIOSH) Pocket Guide to Hazardous Chemicals, Environmental Protection Bureau Library, International Agency for Research on Cancer (IARC) Monographs, Chemical Abstract Service (CAS) Online (1967- May 2001), National Library of Medicine (NLM), Health Effects Assessment Summary Tables (HEAST), and National Toxicology Program (NTP) Status Report.

The EPA has not established a reference concentration (RfC) or reference dose (RfD) for methyl methane sulfonamide. The ACGIH and NIOSH have not established Occupational Exposure Limits (OELs). The molecular weight is 109.16 g, and the molecular formula is C₂H₇NO₂S. Methyl methane sulfonamide is a volatile clear liquid.

Toxicity Study

In a teratogenicity study, the authors stated that methyl methane sulfonamide did not influence the development of the rat fetus even at large doses (Druckrey et al., 1969). Since the study was in German, details of the experimental procedure and results were limited to this statement.

Derivation of Screening Level

The ITSL for methyl methane sulfonamide was established at 0.1 µg/m³ (annual averaging time) based on Rule 232(1)(i).

Reference

Druckrey H, VonKreybig VonT, Preeussmann R, VonKreybig I. 1969. Chemische constitution und teratogene wirkung bei der ralle. Arzeim. Forsch. Volume 19, page 1073-1076.