MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

April 24, 2001

TO: File for Ethyl Acetylene (CAS No. 107-00-6)

FROM: Michael Depa, Toxics Unit, Air Quality Division

SUBJECT: Development of the Screening Level

The initial threshold screening level (ITSL) for ethyl acetylene is 0.1µg/m^3 (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- September 2000), 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 ethyl acetylene. The ACGIH and NIOSH have not established Occupational Exposure Limits (OELs). The molecular weight is 54.09 g, and the molecular formula is C4H6. The molecular structure is pictured in Figure 1. The melting point is -125.7°C. Ethyl acetylene is not water soluble. The boiling point is 8°C, and its physical state is a flammable gas.

Figure 1. Molecular Structure of Ethyl Acetylene

After performing the standard literature searches, no toxicity information was found. Therefore, the ITSL for ethyl acetylene was established at 0.1 µg/m^3 (annual averaging time) based on Rule 232(i).

MD:DB
cc: Cathy Simon, AQD
Mary Lee Hultin, AQD
Sheila Blais, AQD