MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

TO: File for Butyl Formate (CAS No. 592-84-7)

FROM: Michael Depa, Toxics Unit, Air Quality Division

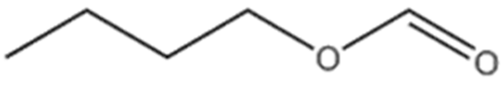
SUBJECT: Development of the Screening Level

DATE: September 10, 2007

The initial threshold screening level (ITSL) for butyl formate is 0.1 µg/m^3 (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- August 2007), 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 butyl formate. The ACGIH and NIOSH have not established Occupational Exposure Limits (OELs). The molecular weight is 102.13 g, and the molecular formula is $C_5H_{10}O_2$. The molecular structure is pictured in Figure 1. The melting point is -91.5 °C, and the boiling point is 106.1 °C. The vapor pressure is 28.9 mmHg @ 25°C. Butyl formate is water soluble. The physical state is a liquid. Odor Characteristic: Fruity, Brandy.

Figure 1. Molecular Structure of Butyl Formate



After performing the standard literature searches no toxicity information was found. Therefore, the ITSL for butyl formate was established at 0.1 µg/m3 (annual averaging time) based on Rule 232(i).

MD:lh