

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

TO: (1-Methylethylidene)bis(1,1-dimethylpropyl)peroxide file (CAS # 3052-70-8)

FROM: Gary Butterfield

SUBJECT: Screening level for (1-Methylethylidene)bis(1,1-dimethylpropyl)peroxide

DATE: September 2, 2009

(1-Methylethylidene)bis(1,1-dimethylpropyl)peroxide is also known as 2,2-di(t-amylperoxy)propane and 2,6-bis(1,1-dimethylpropylperoxy)-2,3,4,4,5,6-hexamethylheptane. It has molecular formula of $C_{23}H_{48}O_4$ with a molecular weight of 388.6 g/mol. The www.chemspider.com web pages reports that the melting point is 107C, boiling point is 401C, and the vapor pressure is 2.8e-6 mmHg at 25C.

The following references or databases were searched to identify data to determine the screening level: U.S. Environmental Protection Agency (EPA) Integrated Risk Information System (IRIS), National Institute for Occupational Safety and Health (NIOSH) Registry for Toxic Effects of Chemical Substances (RTECS), American Conference of Governmental and Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs), Michigan Department of Environmental Quality (DEQ) library, International Agency for Research on Cancer (IARC) Monographs, Chemical Abstract Service (CAS) Online (1968 - August 2009), National Library of Medicine (NLM) - Toxline, and National Toxicology Program (NTP) Status Report.

The CAS and NLM on-line literature searches for this evaluation were conducted on August 18, 2009. There was no toxicity studies located during the literature search for (1-methylethylidene)bis(1,1-dimethylpropyl)peroxide.

Due to a lack of available toxicity data the ITSL will be set at the default 0.1 ug/m³ with annual averaging under R232(1)(i).