

# Michigan Department of Natural Resources and the Environment

## Interoffice Communication

TO: File for 1,1'-(methylenebis(oxyethane-1,2-diyloxy))bisbenzene (CAS# 13879-32-8)

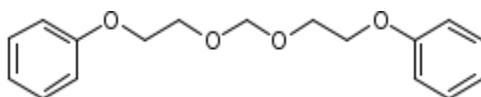
FROM: Doreen Lehner, Toxics Unit, Air Quality Division

SUBJECT: Review of Screening Level for 1,1'-(methylenebis(oxyethane-1,2-diyloxy))bisbenzene (CAS# 13879-32-8)

DATE: November 19, 2010

The Initial Threshold Screening Level (ITSL) for 1,1'-(methylenebis(oxyethane-1,2-diyloxy))bisbenzene is 0.1  $\mu\text{g}/\text{m}^3$  based on an annual averaging time.

A literature review was conducted to determine an initial threshold screening level (ITSL) for 1,1'-(methylenebis(oxyethane-1,2-diyloxy))bisbenzene. The following references and databases were searched to derive the above screening level: EPBCCD, Integrated Risk Information System (IRIS), National Institute for Occupational Safety and Health (NIOSH), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLV)/Biological Exposure Indices (BEI) 2004 guide, DEQ library, National Toxicology Program (NTP) Study Database, International Agency for Research on Cancer (IARC), Acute Database, CAS Online, National Library of Medicine (NLM)-online, Environmental Protection Agency (EPA) Aggregated Computational Toxicology Resource (ACToR) Database, Agency for Toxic Substances and Disease Registry (ATSDR) database, Kirk-Othmer chemical encyclopedia, and Patty's Industrial Hygiene & Toxicology.



1,1'-(methylenebis(oxyethane-1,2-diyloxy))bisbenzene is a clear, pale yellow liquid (MW 288.3383) that is used as a plasticizer for coatings, plastics (2-component-PU systems), construction chemicals, rubber (polysulfide rubber), and substitute for phthalates as plasticizer (e.g. DEHP).

RfC or RfD values were unavailable. There is no NIOSH recommended exposure limit data available or a threshold limit value from ACGIH. There are also no 7-day inhalation studies for bis(2-phenoxyethyl)dimethoxymethane, which would give a NOAEL or LOAEL and no acute inhalation studies which would give an LC50. Based on Rule 232(1)(i) the ITSL is set at the default of 0.1  $\mu\text{g}/\text{m}^3$ . According to Rule 232(2)(c), the averaging time is annual.

Based on the above data, the ITSL for 1,1'-(methylenebis(oxyethane-1,2-diyloxy))bisbenzene is 0.1  $\mu\text{g}/\text{m}^3$  based on an annual averaging time.

### Reference:

Act 451 of 1994. Natural Resources and Environmental Protection Act and Air Pollution Control Rules, Michigan Department of Environmental Quality.