

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

TO: File for Poly(oxy-1,2-ethanediyl),  $\alpha$ -hexyl- $\omega$ -hydroxy  
CAS # 31726-34-8

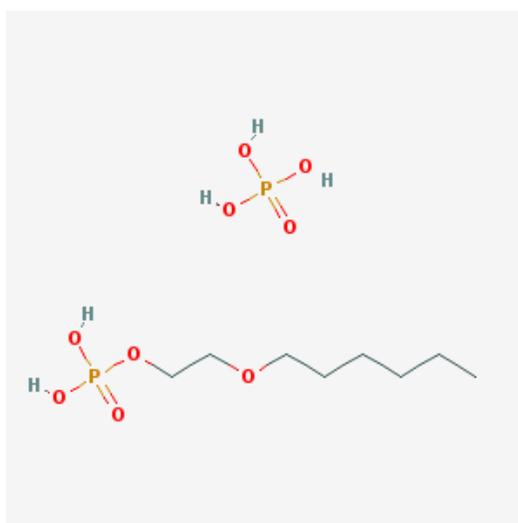
FROM: Doreen Lehner, Toxics Unit, Air Quality Division

DATE: April 8, 2013

SUBJECT: Screening Level for Poly(oxy-1,2-ethanediyl),  $\alpha$ -hexyl- $\omega$ -hydroxy  
CAS# 31726-34-8

The initial threshold screening level (ITSL) for poly(oxy-1,2-ethanediyl),  $\alpha$ -hexyl- $\omega$ -hydroxy (CAS # 31726-34-8) is  $0.1 \mu\text{g}/\text{m}^3$  with an annual averaging time.

Poly(oxy-1,2-ethanediyl),  $\alpha$ -hexyl- $\omega$ -hydroxy (also known as: glycols, polyethylene, monohexyl ether; hexan-1-ol, ethoxylated; and hexyl poly[oxyethylene] ether) is a clear to slightly hazy liquid having a sweet pungent odor with a molecular weight of 146.228 g/mol. This chemical is used: as a surfactant in water/oil mixtures; as solvents in cleaning fluids; in the manufacture of paper products; in adhesives and binding agents; in paints, lacquers, and varnishes; in surface treatments; in cosmetics; in nonagricultural pesticides and preservatives; in construction materials; in pharmaceuticals; as corrosion inhibitors; as antifreezing agents; in aerosol propellants; and in lubricants (ACToR, 2013).



**Figure 1.** Structure of poly(oxy-1,2-ethanediyl),  $\alpha$ -hexyl- $\omega$ -hydroxy

A literature review was conducted to determine an initial threshold screening level (ITSL) for poly(oxy-1,2-ethanediyl),  $\alpha$ -hexy- $\omega$ -hydroxy. The following references and databases were searched to derive the above screening levels: CCD, United States Environmental Protection Agency (US EPA) Integrated Risk Information System (IRIS), National Institute for Occupational Safety and Health (NIOSH), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values and Biological Exposure Indices (TLV/BEI) 2012 guide, National Toxicology Program (NTP) Study Database, International Agency for Research on Cancer (IARC), Acute Database, Chemical Abstract Service (CAS) Online (searched 3/6/13), National Library of Medicine (NLM)-online, EPA Aggregated Computational Toxicology Resource (ACToR) Database, U.S. EPA TSCATS database, and Hazardous Substances Data Bank (HSDB).

RfC or RfD values were unavailable. There is no NIOSH recommended exposure limit data available for this compound or a threshold limit value from ACGIH. No 7-day inhalation studies that would yield a LOAEL or NOAEL and no acute inhalation data where an LC<sub>50</sub> can be derived. 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.

#### **References:**

ACToR. 2013. Aggregated Computational Toxicology Resource. Chemical Summary: Hexan-1-ol, ethoxylated (31726-34-8). Accessed data on 3/13/2013. Available online at: <http://actor.epa.gov/actor/GenericChemical?casrn=31726-34-8>

APCR. 2013. Air Pollution Control Rules, Promulgated pursuant to Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, Michigan Department of Environmental Quality. 1994, Act 451, as amended (NREPA).

DL:lh