

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

TO: Neopentyl glycol diglycidyl ether file (CAS # 17557-23-2)
FROM: Gary Butterfield
SUBJECT: Screening level for Neopentyl glycol diglycidyl ether
DATE: May 8, 2008

Neopentyl glycol diglycidyl ether is also known as 1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane. It is a colorless liquid. The boiling point is 105 C. The molecular formula is C₁₁H₂₀O₄. The molecular weight is 216.3 g/mol.

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-April 2008), National Library of Medicine (NLM) - Toxline, and National Toxicology Program (NTP) Status Report.

The CAS and NLM on-line literature searches were conducted on April 22, 2008. Several secondary references (RTECS, Patty's) report a rat oral LD50 for neopentyl glycol diglycidyl ether being 4.500 g/kg. However, no original primary reference study could be located that supports value. There are several unpublished dermal toxicity studies found on EPA's web site. The dermal exposures indicate that this material may be a sensitizer. The dermal route of exposure studies are not useful for setting an inhalation screening level.

Due to a lack of available toxicity data, the screening level is being set at 0.1 µg/m³ with annual averaging under R232(1)(i).

GB:lh