

ALKYLPHENOLS BULLETIN

An Update from the Alkylphenols & Ethoxylates Research Council

September 23, 2009

The Alkylphenols Bulletin periodically notifies manufacturers and users of alkylphenols and their derivatives of national and international developments of interest. For further information, please contact the APE Research Council at the address below.

APERC RESPONDS TO EPA REQUEST FOR COMMENTS

The Alkylphenols & Ethoxylates Research Council (APERC) submitted comments to the US Environmental Protection Agency (EPA) that support the continued safe use of nonylphenol (NP) and nonylphenol ethoxylates (NPE) in industrial laundries and other uses. A review of the extensive set of studies for NP and NPE, which are among the most comprehensively studied chemicals in commerce today, was provided.

APERC's comments were submitted on September 15 in response to the EPA's request for public input (Federal Register, 74, 28654-28662) on whether certain types of studies are necessary to reasonably assess the risk of NP and/or NPE to aquatic organisms. In addition, EPA asked whether exposure monitoring is necessary to assess the risk to industrial laundry workers that use detergents that contain NPE.

APERC provided a summary of the extensive ecotoxicity data set supporting the conclusion that additional testing on NP and NPE is not necessary. APERC's comments provided a review of the recent ecotoxicity data for NP, which continue to support the ambient aquatic life water quality criteria (WQC) for NP that US EPA finalized in 2006.¹ WQC are concentrations in water that, when met, will protect aquatic life.

A peer-reviewed paper by Klecka et al. (2007) found that 99% of NP concentrations in fresh surface waters are below the EPA chronic freshwater WQC and concluded that the likelihood of aggregate NP-equivalent surface water concentrations of NP, NPE, and other alkylphenol ethoxylates (APEs) exceeding the chronic EPA WQC for NP is low.² The paper was based on data provided by 19 studies of US surface waters that were conducted over a 15 year period. The largest set of monitoring data was from studies conducted by the US Geological Survey (USGS).

APERC also submitted comments supporting the safe use of NPE in industrial laundry detergents, noting that a large majority of industrial laundries utilize automated chemical handling and delivery systems, which minimize worker contact with detergents, and therefore, also with NPE. In addition, worst-case calculations of worker exposure were provided for situations where workers manually load either liquid or granular laundry detergents into washing machines. These calculations indicated that worker exposure to NPE is very low and the corresponding safety factors are substantial, ranging from 46,000 to 30 million for worst-case exposures in the most likely exposure scenarios.

¹ US Environmental Protection Agency (US EPA). (2006, February 23). Notice of availability of final aquatic life ambient water quality criteria for nonylphenol. Federal Register, 71 (36), 9337-9339. <http://www.epa.gov/EPA-WATER/2006/February/Day-23/w2558.htm>.

² Klecka, G., Zabik, J., Woodburn, K., Naylor, C., Staples, C., & Huntsman, B. (2007). Exposure analysis of C8- and C9-alkylphenols, alkylphenol ethoxylates, and their metabolites in surface water systems within the United States. Human and Ecological Risk Assessment, 13 (4), 792-822.

APE Research Council

1250 Connecticut Avenue, NW, Suite 700, Washington, DC 20036 Phone: 202-419-1506

<http://www.aperc.org> info@aperc.org