



NP's and NPE's...Another Concern for the Industry? - July 2014

Nonylphenol and nonylphenol ethoxylates (often referred to as NP's and NPE's) have recently been brought to the attention of dairy industry manufacturers by members of the infant formula industry in Europe. These compounds are common surfactants used for reducing the surface tension of water that allows for easier spreading, wetting, and mixing of liquids. Heavy use in cleaning and sanitation chemicals in the food and textiles industries can result in these surfactants accumulating in ground water and watersheds.

NP's and NPE's are not directly a concern, however, they degrade into relatively toxic compounds in aquatic environments impacting fish and other wildlife. One recent publication demonstrated NPE degradation products in human breast milk from women living near the coast of Italy where heavy consumption of fish and other seafood is common.

NP and NPE use in Europe is highly restricted to minimize exposure to aquatic species and potential transfer to humans. In 2003, the EU passed a directive that restricts the marketing of products that contain more than 0.1% NP or NPE. In the U.S., the EPA has studied these compounds extensively and has published a recommendation to manufacturers for use of alternative chemical surfactants as part of the department's "Design for the Environment" campaign. No final ruling on NP and NPE used has been issued by EPA at this point in time, though.

Most chemical suppliers in the U.S. are sensitive to this issue and have opted for alternatives in their formulations. With that said, even residual levels of these compounds in U.S. dairy products may create problems when selling into EU countries. ADPI is monitoring the situation and will communicate any changes in NP and NPE use in U.S. facilities by EPA. [View The Technical Brief](#)

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