

NMC NPE Fact Sheet

The use of Nonylphenol Ethoxylates (NPE) in dairy sanitation chemicals has become a global issue. The purpose of this fact sheet is to clarify why there is concern over NPE use and what implications it has for dairy producers.

What are NPEs?

NPEs are common components used in a wide variety of industrial applications, from dust control agents to laundry detergents. In the dairy industry, NPEs can be found in teat disinfectants, udder washes, milking machine detergents, and commercial laundry products. They are principally used as surfactants, to help liquid solutions spread or cling to other materials and surfaces. NPEs are especially common in iodine-based products because they are an effective complexing agent, helping to keep the other components in suspension and stable throughout the product's shelf life.

Why are NPEs a concern?

The restrictions on NPE use are driven by concern over the breakdown product nonylphenol (NP) in the environment. NP accumulates and is hazardous to aquatic organisms. Further, NP is an endocrine disruptor and therefore affects animals including humans. This has led to both regulatory action and trade restriction, varying by global region.

Increasingly, milk buyers and dairy product manufacturers are testing for the presence of NPE in milk products and setting thresholds for acceptable NPE levels. This is in response to major milk markets imposing stringent market access standards. Thus, some milk processors have worked to restrict or eliminate NPE from their processing plants and their incoming milk supply. These processors have asked that the farms supplying them discontinue the use of NPE-containing teat disinfectants, detergents, and sanitizing products on their farms.

How are NPE's being regulated?

In the United States, the Environmental Protection Agency has issued a significant new use reduction (SNUR) initiative, aimed at reducing the overall use of NPEs in industry. The EPA is asking industry trade organizations representing the largest NPE users to voluntarily reduce or eliminate the amount of NPE that is used.

Dairy farm sanitation products which would commonly contain NPEs are not regulated by the EPA; teat disinfectants in the United States are regulated by the Food and Drug Administration, which has not restricted NPE use. In short, there is no specific governmental restriction on NPE inclusion in teat disinfectants in the U.S. at this time.

The European Union, Japan, and New Zealand have regulations in place (or milk buyers in these regions have conditions in their contract of supply with farms) that either

ban or greatly curb the use of NPE's in those regions. As governmental regulations are subject to change, we recommend contacting your local regulatory agency for regulations specific to your region.

How does this affect dairy producers?

Dairy farmers are ultimately responsible for understanding which, if any, of the products they use on farm contain NPE; this information should be readily available from their chemical suppliers.

While regional limits placed on the use of NPE, either through milk processors or governmental regulation, can be disruptive, dairy producers have many options. Numerous teat disinfectant products exist on the market today that are free of NPE and are functionally equivalent to the NPE-containing alternatives.