

NPE or NPE-free? That is the Question.

The U.S. agricultural sector is increasingly aware of concerns around using NPEs (Nonylphenol Ethoxylates) in adjuvants and pesticide formulations. NPEs can be harmful to aquatic organisms by negatively affecting their reproductive systems.

The United States Environmental Protection Agency has suggested the voluntary reduction of NPEs. The European Union and Canada have already severely limited the use of NPEs in agriculture and, in some cases, have banned them. As we continue to rely on this raw material for its functionality and low price point, there are other agronomic challenges facing growers in the field with NPE containing formulas.

Arrested Ear Syndrome and Adjuvants with NPE

In the early 2000s, Arrested Ear Syndrome (AES) showed up in more and more cornfields. Simultaneously, an increase of non-selective fungicide applications was applied just ahead of corn tasseling at V12-VT due to the widespread use of herbicide-tolerant GMO corn hybrids. These hybrids allowed for later in-season herbicide applications than before the use of GMO corn. Research later showed that nonionic surfactants and pesticides containing NPE's were associated with AES.

The development and improved availability of NPE-free adjuvants has increased crop safety for fungicide applications. While adding the right adjuvant to a tank mix is essential in guaranteeing the pesticide's efficacy, it is recommended to select an NPE-free adjuvant on corn and soybeans to enhance safety.



“Arrested ear development is a physiological disorder that can significantly reduce corn yields. It is not a disease but refers to the abnormal corn ear development caused by a number of stress factors, including the application of nonionic surfactant adjuvants.”
- Purdue Extension Service

Universities and basic pesticide manufacturers have varying recommendations on what growth stage to avoid pesticide applications, with or without adjuvants. Please consult the pesticide label for their use restrictions on when and what type of adjuvants to use.



Product packaging sizes available.

As the U.S. agricultural pesticide distribution chain is becoming more aware of end-users and the general public's concerns with NPEs, a growing number of Ag Distributors and Retailers address that by offering NPE-free products.

Exacto's full line of NPE-free formulations features ingredients with enhanced crop safety to enable distributors to provide a complete portfolio of adjuvants to their customers with the environmental aspects in mind. Below is a highlight of Exacto's NPE-free adjuvants.

Don't miss out on this growing market opportunity and expand your adjuvant product line with NPE-free products with enhanced crop safety.

Expand your adjuvant product line with NPE-free products for greater crop safety. Call your Exacto representative today!

Exacto NPE-Free Formulation*	Functionality
TOLEX® ME 6047 DRA	High Surfactant Paraffin Oil Concentrate, Drift Control
SURFLEX® AQ 80	Nonionic Surfactant, Silicon-Based Spreader Wetter 80/20
SURFLEX QW 380	Nonionic Organosilicone Surfactant, Super Spreader Wetter
SYNTHEX® L 941	Nonionic Surfactant, Spreader Wetter, Water Conditioner, Drift and Deposition
SYNTHEX AA 47	Water Conditioner with Alkaline Buffer
SYNTHEX NCD 46	Water Conditioner, Spreader Wetter, Drift and Deposition
POLYTEX® L 552	Drift Reduction, Deposition Oil Emulsion
SILEX® T 3010	Anti-Foam & Defoamer

* This is a partial listing of NPE free products. Contact your Exacto representative for a full list.

Contact your Exacto Representative to learn which NPE-Free adjuvants fit your needs or see our CORE 40 Product Catalog for more details.