

# **WASHINGTON WATCH**

## **EPA Proposes Significant New Use Rule** for Certain Nonylphenol and Nonylphenol Ethoxylates

#### By Lynn L. Bergeson

On October 1, 2014, the U.S. Environmental Protection Agency (EPA) proposed a Significant New Use Rule (SNUR) under the Toxic Substances Control Act (TSCA) for certain related chemical substances commonly known as nonylphenols (NP) and nonylphenol ethoxylates (NPE) (Federal Register (FR), 2014). For 13 NPs and NPEs, EPA would designate any use as a "significant new use," and for two additional NPs, EPA would designate that any use other than use as an intermediate or use as an epoxy cure catalyst would constitute a "significant new use" (FR, 2014, p. 59186). For a variety of reasons, which are discussed below, the proposed rule is interesting and significant. EPA has already agreed to extend the comment period to mid-January in response to several industry trade groups' requests for more time.

## Background

NPEs are surfactants, a functional class of chemicals that provide increased surface activity and reduce the surface tension of water, allowing easier spreading and wetting and better mixing of liquids. Surfactants are classified into one of four categories based on their ionic properties in water:

- Anionic (negative charge),
- Nonionic (no charge),

- · Cationic (positive charge), and
- Amphoteric (both positive and negative charges).

NPEs are nonionic surfactants that are part of the broader category of surfactants commonly known as alkyphenol ethoxylates (APE). The primary use of NPs is as a raw material in the synthesis of NPEs.

NPs and NPEs are produced in large volumes and for uses that, according to EPA, lead to their widespread release to the aquatic environment. Based on EPA data, NPEs represent approximately 80% to 85% of the volume of APEs. Common uses include surfactants, detergents, cleaners, degreasers, dry cleaning aids, petroleum dispersants, emulsifiers, wetting agents, adhesives, indoor pesticides, cosmetics, paper and textile processing formulations, prewash spot-removers, metalworking fluids, oilfield chemicals, paints and coatings, dust control agents, phosphate antioxidants for rubber and plastics, and miscellaneous uses, including lube oil additives.

EPA has long expressed concern regarding the potential impacts of NP and NPE chemicals. In 2010, for example, EPA issued the NP and NPE Action Plan. Action Plans were developed by EPA to address potential risks posed by chemical substances believed to pose risk to human health and the environment. EPA identified a number of issues that it stated it would take into consideration in the development of an Action Plan for NPs and NPEs. Steps EPA identified in 2010 included regulatory actions under TSCA Sections 4 (testing) and 5 (risk management), requiring reporting under the Emergency Planning and Community Right-to-Know Act (EPCRA) Section 313, and voluntary actions through such programs as EPA's Design for the Environment (DfE).

On the basis of existing information, EPA stated that it believed that the following actions would be warranted:

- Supporting and encouraging the voluntary phase-out of the use of NPEs in industrial laundry detergents;
- Initiating rulemaking simultaneously to propose a TSCA SNUR and a test rule for NPs and NPEs; and
- Considering initiating rulemaking under TSCA Section 5(b)(4) to add
  NPs and NPEs to the list of chemicals that "present or may present" an unreasonable risk of injury to health or the environment.

Since then, EPA has implemented some of those actions. On September 30, 2014, for example, EPA issued a final rule adding an NP category to the list of toxic chemicals subject to reporting under EPCRA Section 313. The rule applies for the reporting year beginning in 2015.

### **Proposed SNUR**

The proposed SNUR reflects EPA's continued interest in eliminating and/or blunting the use of certain NPs and NPEs believed to pose risks, and the Agency is implementing its Action Plan measures. Persons subject to the SNURs would be required to notify EPA at least 90 days before they manufacture (including import) or process any of these 15 chemical substances for a significant new use. EPA is proposing to designate any use of the 13 NPs and NPEs listed below in **Exhibit 1** (Table 1 in the Federal Register) as a significant new use, and any use other than use as an intermediate or use as an epoxy cure catalyst as a significant new use of the two additional NPs listed below in **Exhibit 2** (Table 2 in the Federal Register).

Exhibit 1. NPs and NPEs for which Any Use Is a Significant New Use

Chemical Name	Chemical Abstracts Index Name	Chemical Abstracts Service Registry Number (CASRN)	NP or NPE
4-nonylphenol	Phenol, 4-nonyl-	104-40-5	NP
2-[2-[2-(4- nonylphenoxy)ethoxy]	Ethanol, 2-[2-[2-(4-	7311-27-5	NPE
ethoxy]ethoxy]ethanol	nonylphenoxy)ethoxy]		
	ethoxy]ethoxy]-		
α (Nonylphenyl)-ω-hydroxy-poly(oxy-1,2- ethanediyl)	Poly(oxy-1,2-ethanediyl),	9016-45-9	NPE
	$\alpha$ (nonylphenyl)- $\omega$ -hydroxy-		
2-[2-(4-nonylphenoxy)ethoxy]	Ethanol, 2-[2-(4-	20427-84-3	NPE
ethanol	nonylphenoxy)ethoxy]-		
Nonylphenol	Phenol, nonyl-	25154-52-3	NP
α-(4-Nonylphenyl)-ω-hydroxy-poly	Poly(oxy-1,2-ethanediyl), α-(4-	26027-38-3	NPE
(oxy-1,2- ethanediyl)	nonylphenyl)- ω-hydroxy-		
2-[2-[2-[2-[2-[2-[2-[2-(Nonylphenoxy)ethoxy]ethoxy]	3,6,9,12,15,18,21,24-	26571-11-9	NPE
ethoxy]ethoxy]ethoxy]	Octaoxahexacosan-1-ol, 26-		
ethoxy]ethanol	(nonylphenoxy)-		
2-[2-(Nonylphenoxy)ethoxy]ethanol	Ethanol, 2-[2-	27176-93-8	NPE
	(nonylphenoxy)ethoxy]-		
2-[2-[2-[2-[2-[2-[2- (nonylphenoxy)ethoxy]ethoxy]	3,6,9,12,15,18,21-Heptaoxatricosan-	27177-05-5	NPE
ethoxy]ethoxy]ethoxy]	1-ol, 23- (nonylphenoxy)-		
ethoxy]ethanol			
2-[2-[2-[2-[2-[2-[2-[2-	3,6,9,12,15,18,21,24,27-	27177-08-8	NPE
(nonylphenoxy)ethoxy]ethoxy]ethoxy]ethox	Nonaoxanonacosan-1- ol, 29-		
y]ethoxy]ethoxy]ethoxy]ethanol	(nonylphenoxy)-		
2-(Nonylphenoxy)ethanol	Ethanol, 2-(nonylphenoxy)-	27986-36-3	NPE
α-(Isononylphenyl)-ω-hydroxy-poly(oxy-1,2- ethanediyl)	Poly(oxy-1,2-ethanediyl), α-	37205-87-1	NPE
	(isononylphenyl)- ω-hydroxy-		
α-(2-Nonylphenyl)-ω-hydroxy-poly(oxy-1,2- ethanediyl),	Poly(oxy-1,2-ethanediyl), α-(2-	51938-25-1	NPE
	nonylphenyl)-ω-hydroxy-		

(FR, 2014, p. 59188).

Exhibit 2. NPs for which Any Use Other Than as an Intermediate or Epoxy Cure Catalyst Is a Significant New Use

Chemical Name	<b>Chemical Abstracts Index Name</b>	CASRN	NP or NPE
4-nonylphenol, branched	Phenol, 4-nonyl-, branched	84852-15-3	NP
2-nonylphenol, branched	Phenol, 2-nonyl-, branched	91672-41-2	NP

(FR, 2014, p. 59188).

The proposed SNUR would apply to the uses that are not ongoing at the time of the proposed rule. Uses not ongoing at the time of the proposal would be designated significant new uses in the final SNUR. EPA states that it is specifically requesting comment on whether it has correctly identified the current and ongoing uses of the 15 NPs and NPEs covered by this proposed rule. According to the *Federal Register* notice, EPA is particularly interested

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in whether anyone is currently using these chemicals in a manner that is not described in this proposal.

Of the 13 linear NPs and NPEs listed in Exhibit 1, EPA states that 12 of the chemical substances were not reported to the 2012 Chemical Data Reporting (CDR) Rule. One of the 13 substances was reported to the 2012 CDR, but, according to EPA, "the available information indicates that the chemical substance is not currently being manufactured or is otherwise used or distributed in commerce" (FR, 2014, p. 59190). The two branched NPs listed in Exhibit 2 are not in use except as intermediates and epoxy cure catalysts. EPA states that, based on the "reasonably anticipated manner and methods of manufacturing, processing, distribution in commerce, and disposal of these chemical substances" (FR, 2014, p. 59190), it is concerned that future manufacturing or processing could have the potential to increase significantly the magnitude and duration of environmental exposures. EPA determined that "individual evaluation of the activities associated with those new uses is warranted to allow the Agency to determine whether any controls are necessary before such manufacturing (including importing) or processing starts or resumes" (FR, 2014, p. 59190). EPA specifically requests comment "on all aspects of this proposed rule, including the commercial production of linear forms of NPs and NPEs, as well as any ongoing uses of the subject chemical substances" (FR, 2014, p. 59192).

#### Discussion

Although the NPs and NPEs at issue are a class of chemicals known to be persistent and toxic in the environment, what may be new about the proposal is the way that EPA apparently relied exclusively upon a narrow data set -- the 2012 CDR and two databases (Household Products Database

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and Consumer Products Information Database) -- as the basis for determining that 13 of the chemicals are not in production. Accordingly, EPA has proposed an "any use" (FR, 2014, p. 59186) SNUR for each identified chemical. There is no indication in the record that suggests EPA conducted other Internet searches, (e.g., using the CASRN to search for commercial availability information, Material Safety Data Sheets (MSDS), or other information that might indicate continued commercial availability). Interestingly, a quick CASRN search of 4-nonylphenol (CASRN 104-40-5), showed a number of hits, including, among others, on the *Chemical Book* website, which reported 70 global suppliers with 15 located in the United States. On the other hand, the chemical identified as CASRN 7311-27-5 showed only one global supplier (from China) on this site. The search for the chemical CASRN 9016-45-9 showed MSDSs from a number of wellknown domestic chemical companies and many other hits that seemed indicative of continued commercialization. Similar searches were conducted for other chemicals in the proposal with similar results, with the exception of one chemical, which had no hits.

EPA's confidence in concluding that 13 chemicals are commercially dead, based on the limited due diligence revealed in the record, is unwarranted. While EPA appears to have a basis for concluding that production/importation in excess of the CDR trigger for 2012 (25,000 pounds at a site) is known not to have occurred in the CDR reporting year, the leap to a proposed conclusion that the 13 chemicals are no longer in commerce -- and thus justifying an "any use" SNUR -- is speculative. Further, there is no discussion in the notice of the limitations in the 2012 CDR (site-specific volume trigger with no reporting required if trigger is not met) and no background discussion of reporting under other earlier Inventory Update Rule (IUR) cycles. Additional reporting data points (e.g.,

reporting under the IUR, results of contemporaneous Internet searches for indicators of commercial availability) could provide potentially relevant information given that the 2012 CDR reporting only covered the year 2011. Also, in the case of other proposed SNURs (*e.g.*, Perfluorooctane Sulfonate (PFOS), Long Chain Perfluorinated Chemicals (PFCs), Polybrominated diphenylethers (PBDEs), among others), EPA cited industry commitments to phase out certain chemicals/uses, or statements indicating that production or a use has ceased, as a basis for the proposal. No such commitments or statements appear in the proposed SNUR.

While EPA has developed a number of innovative ways to use its SNUR authority to regulate problematic existing chemicals over past years, it is surprising that in this case, EPA has proceeded without undertaking what could be considered reasonable due diligence in supporting its consideration of the Section 5(a)(2) factor concerning production. In conducting a rather modest investigation, EPA has shifted the burden on industry to disprove its contentions. While EPA's resources are limited and valuable, the same is true of industry's available resources. Further, the quick results that can be obtained through CASRN searches on a few of the chemicals in the rule provide what could be considered a *prima facie* refutation of the SNUR "any use" trigger if not the entire rulemaking premise of using CDR data in the way that EPA has done.

These deficits make it all the more important for companies with interests in the NPs and NPEs at issue to review the proposal carefully. It will be essential to consider their commercial status and, as appropriate, comment on the proposal and ensure EPA is aware of any ongoing production, processing, or uses. We particularly alert processors and users of such surfactant chemicals to consider their situation, given that they are not

otherwise required to consider the specific chemicals and volumes they obtain and use for purposes of reporting under the CDR, as is the case for manufacturers and importers. As noted, EPA has extended the comment period 45 days to ensure entities are able to identify product lines containing these chemicals and alert EPA to the continued use of any specified NP or NPE.

#### References

Federal Register. (October 1, 2014). Vol. 79, No. 190.

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