

## Sweden prepared a restriction report on nonylphenols and nonylphenol ethoxylates in textile articles<sup>1</sup>

### SUMMARY

Sweden has submitted a report proposing a restriction on the placing on the market of textile clothing, fabric accessories and interior textile articles that can be washed in water if they contain nonylphenol (NPs) and nonylphenol ethoxylate (NPEs), alone or in combination, in concentrations equal or higher than 100 mg/kg textile. The reason for the proposed action is a concern for the aquatic environment from the combined toxicity of NP and NPE and their degradation products, as well as the uncertainties surrounding the endocrine disruptive properties of NP and NPE, being the most prominent contributing factors.

NPs are used as intermediates in the production of various derivatives, mainly NPEs, which can break down into NPs again in the environment. NPEs are still used, for example as detergents, in the manufacturing of textile articles, primarily outside the EU. Washing of these textile articles releases NPs and NPE into the environment. The annual total release of NPs/NPEs to EU waste water from textile washing is estimated to account for approximately half of total NP-equivalent emissions.

The report argues that overall, the proposed restriction is effective, practical and monitorable. The restriction would effectively reduce the emissions from textile articles with substantial benefits to society, for example from less pressure on biodiversity. The costs to comply with the restriction are estimated to consist primarily of substitution costs to textile manufactures and EU importers and retailers.

ECHA today opens the public consultation on this restriction report, which will end on 18 March 2014. However, ECHA's Committees on Risk Assessment (RAC) and Socio-economic Analysis (SEAC) would welcome any earlier comments by 29 November 2013 to assist them in the first discussion of the restriction proposal in the committee's meetings of December 2013.

### SUGGESTED RESTRICTION

Sweden has submitted a REACH Annex XV report proposing the following restriction: *Textile clothing, fabric accessories and interior textile articles that can be washed in water shall not be placed on the market 60 months after entry into force of the restriction if they contain nonylphenol and nonylphenol ethoxylate alone or in combination in concentrations equal or higher than 100 mg/kg textile. The limit value includes prints on the textile articles covered by the proposed restriction.*

### NONYLPHENOLS AND NONYLPHENOL ETHOXYLATES IN TEXTILE ARTICLES

The use of NPs and NPEs in concentrations equal or higher than 0.1% has been restricted within the EU since 2005 for the processing of leather and textiles amongst others. Exceptions are where there is no release into waste water as well as special treatment systems where the process water is pre-treated prior to waste water treatment (REACH

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<sup>1</sup> The information note has been prepared based on the Annex XV report submitted by Sweden.

Annex XVII, Entry 46). NPEs are however still used, primarily outside of the EU, in the manufacturing of textiles mostly as surfactants (cleaning or emulsifying agents).

### REASONS FOR ACTION

When the textile articles containing NPs and NPEs are washed within the EU, the residues of NPs and NPEs are released into the environment via waste water. NPs enter the aquatic compartment directly or as breakdown products from NPEs. The annual environmental release from textiles of NPs and NPEs and their derivatives is estimated at 257 tonnes expressed in terms of weight equivalents to nonylphenols (NPEq) (roughly half of the overall EU environmental release). It is estimated that following waste water treatment, 2.5% of this volume is released to surface water.

NP is toxic to aquatic life. The report identifies a concern for NPs and NPEs in the aquatic environment when considering: (a) the results of the quantitative risk assessment for the NPs on their own; (b) the combined toxicity of NPEs and their degradation products such as NPs and nonylphenol ethoxycarboxylates; and (c) the quantitative and qualitative risk assessment based on the endocrine disrupting properties of NPs.

### CONSEQUENCES OF THE ACTION

The report argues that the proposed restriction would reduce the risk to the aquatic environment. It is expected to decrease the mean concentrations of NP/NPE in textile articles to roughly 29 mg/kg, i.e. about 73% lower in the year 2020 compared to the estimated 107 mg NPs/NPEs per kg textile in the baseline scenario. Compared to the estimated total emission of NPs/NPEs to the environment (including all the assessed emission sources) in 2010, the proposed restriction would reduce emissions by 34% in 2020.

The report states that the proposed restriction effectively targets the risk to the aquatic environment and is practical and monitorable. The efforts required by stakeholders to comply with the proposed restriction correspond to its anticipated benefits in terms of reduced adverse effects to the aquatic environment. It allows sufficient time (5 years) for the actors in the supply chain to adapt to the restriction and thus to deplete any stocks of textiles that could contain NP/NPE concentrations above the proposed limit. There are already a range of alternatives widely used in textile production (e.g., alcohol ethoxylates and glucose based surfactants) that are generally shown to be comparable to NPEs in terms of effectiveness as surfactants, are of lower health/environmental risk in comparison to NPs/NPEs, but the cost may be slightly higher. The costs of the proposed restriction are identified to consist primarily of substitution costs which are estimated at approximately €2.8 to 5.2 million in the year 2020. These are expected primarily for the EU importers and retailers as well as the non-EU producers. The overall cost of substituting NPEs with alternative surfactants is estimated to be minor in comparison to other risk management measures and the EU import value of textiles. It is concluded by Sweden that the proposed restriction will result in substantial benefits to society since it will reduce the negative impact on biodiversity and functions and services provided by ecosystems in the Union.

### COMMENTS PREFERABLY BY 29 NOVEMBER

The opinion forming process of RAC and SEAC begins with a public consultation on 18 September 2013. Interested parties can comment on the proposal and the restriction report using the ECHA website. Although the public consultation concludes on 18 March 2014, the rapporteurs of RAC and SEAC would appreciate receiving comments by 29

## **PUBLIC CONSULTATION**

November 2013 to assist them in the detailed discussion of the restriction proposal in the committee meetings December 2013.

The RAC opinion is scheduled to be available by 18 June 2014 and SEAC's by 18 September 2014. ECHA will send these two opinions to the European Commission, which will take the decision whether to include the proposed restriction in Annex XVII of the REACH Regulation.