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## Nonylphenol ethoxylates in imported textiles

May 2013

This briefing note is aimed at manufacturers, importers, distributors and retailers of textile products in the UK. Research has been conducted by the Chemical Compliance Team of the Environment Agency to assess the presence of nonylphenol ethoxylates (NPE) in textiles imported into the UK.

**29% of imported cotton underwear tested were found to contain the chemical NPE. When washed, 99.9% of NPE was released. NPE is a known precursor to the endocrine disruptor nonylphenol.**

### Background

Nonylphenol (NP) is listed as a priority hazardous substance under the Water Framework Directive (WFD) due to its potential impact on the aquatic environment, and so emissions need to be eliminated. NP has been shown to be an endocrine disruptor in living organisms, meaning it has the potential to mimic hormones - in this case oestrogen. NP is a break down product of a group of substances collectively called NPE.

NP and NPE continue to be detected in waterways across the UK. As a result, these chemicals need to be reduced or eliminated in order to comply with the WFD and improve water quality. One potential source of NP/NPE in UK waterways is the presence of NPE on textiles. NP and NPE are restricted for use in textile processing in the EU under REACH (use is only allowed in closed systems). But, currently there are no restrictions limiting the concentration of NPE in final textile goods that are placed on the market, which includes textile imports from outside the EU.

### Research

The Environment Agency's Chemical Compliance Team (CCT) has recently undertaken research to determine if textiles are a major source of NPE in UK waterways. The CCT have analysed 100 pairs of cotton underwear to determine the presence and concentration of NPE. Ninety-six of these were non-EU manufactured. Analysis was conducted to determine the concentration of NPE and also how much is released when washed in a domestic washing machine. This research follows on from similar work carried out by other organisations.

### Findings

The analysis showed that 29% of imported cotton underwear tested contained NPE above the detection limit of 3 mg/kg. Further analysis showed that over 99.9% of NPE was released from the samples after two washes at 40°C using liquid biological detergent. There is evidence that not all NPE is removed by waste water treatment works; so, washing textile articles containing NPE provides a pathway for NPE to enter the UK's water environment.

## How you can help improve the environment

If you are a manufacturer, importer, distributor or retailer of textile products in the UK you can help to reduce the amount of NPE entering the UK's waterways. Please take the time to:

1. **Read our report: '*Nonylphenol ethoxylates in imported textiles*'** which is available on our website;
2. **Assess your products:** have they been processed with NPE? If you don't know, ask your supplier or manufacturer for information;
3. **Take action:** eliminate NPE from your supply chain if it is being used in your products. There are suitable, more environmentally friendly alternatives to NPE for textile processing.

Many UK companies already ensure the textile products they import and sell in the UK do not contain NPE. Ways of managing the chemicals used in your products include:

- Restricted Chemicals List
- Eco-labelling – e.g., Oeko-Tex Standard 100, EU Flower
- Environmental Product Declarations
- Supplier agreements

Further restrictions under REACH are likely to be proposed that extend to NP and NPE use on textiles intended for sale in the EU. This work is still in the early stages. However, by taking action now to eliminate NPE from your supply chain you can help to improve the environment and be well prepared for stricter controls on the products you place on the market.

## Further information

If you have any questions or would like further information you should:

- Send an email to [chemicalrestrictions@environment-agency.gov.uk](mailto:chemicalrestrictions@environment-agency.gov.uk)
- Call our National Customer Contact Centre on 03708 506 506; please ask to speak to a member of the Chemical Compliance Team.

## LIT 8251

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03708 506 506

incident hotline  
0800 80 70 60

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[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)