

**SUBSTITUTION CASE STORY -
SUBSTITUTION OF TWO SOFTENERS
CONTAINING NONYLPHENOL
ETHOXYLATES (NPEOS) IN THE
GARMENT WASHING PROCESS**

APRIL 2018

BURBERRY

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ABSTRACT

Due diligence testing of a finished product revealed the presence of APEOs at 1580ppm. Further input chemical screening of washing softeners used at Burberry's partner facility for the washing process revealed the presence of 29700 ppm of NPEOs in one of the softeners and 557 ppm of NPEOs in the other softener. The softeners were then immediately replaced with NPEO-free softeners in collaboration with the partner and the new chemical supplier.

SUBSTITUTED SUBSTANCE(S)

1. Nonylphenol Ethoxylates (NPEOS)

CAS No. 9014-93-1

CAS No. 9000-90-2

ALTERNATIVE SUBSTANCE(S)

1. Aqueous dispersion softener

OTHER TYPE OF ALTERNATIVE

1. Fatty acid derivative based preparation softener

APPLICATION

Sector

Manufacture of textiles, wearing apparel, leather and related products

Process

Garment washing

Enterprise Using The Alternative

Organisation/Company: Burberry

Email: project2020@burberry.com

Website: www.burberry.com

State Of Implementation

In Use

Date When Alternative Was Implemented And In What Country

August 2017 in the USA

Availability Of The Alternative

On the market

Producer Or Supplier

DyStar Singapore Pte Ltd

Address: 1A International Business Park #10-01, Singapore 609933

Reliability Of Information

Evidence of Implementation: There is evidence that the solution was implemented and in use at time of publication

HAZARD ASSESSMENT

According to the chemical supplier, the alternative softeners formulations are not classified. Alternative chemicals are not listed on the Substance Database according to SUBSPORT Screening Criteria (SDSC).

SUBSTITUTION DESCRIPTION

Alkylphenol Ethoxylates (APEOs) are man-made chemicals used as surfactants, detergents and emulsifiers in Textile and Leather supply chains.

APEOs have been included in the Burberry Product Restricted Substances List (PRSL) and Manufacturing Restricted Substances List (MRSL) documents in October 2014.

The analytical screening of input washing chemicals used at one partner facility revealed that two softeners contained 29700 ppm and 557 ppm of NPEOs respectively. This company in collaboration with the chemical supplier, substituted the NPEOs containing softeners with two other softeners (DyStar Lava Sperse CP-OS) and (DyStar Sera Lube M-AL) from DyStar.

The alternative softener formulations are in conformance with Burberry MRSL as declared by the chemical supplier. The finished product washed with replacement softeners were tested and confirmed APEOs free.

The alternative softeners were found to give the same washing effect on the textile garment upon comparison with the substituted softeners when it was applied as per the recipe advised by the chemical supplier. Furthermore, there was no cost impact for this substitution.

CASE/SUBSTITUTION EVALUATION

This case story describes the substitution of two NPEO containing softeners, which are classified on sub sport as CLP Regulation: Sensitiser (H317, H334). According to the chemical supplier's declaration, the alternative chemicals are not listed on the SDSC.

Other Solutions

Burberry PRSL and MRSL documents can be found [here](#) and [here](#)
MSDS of the alternative products are available