

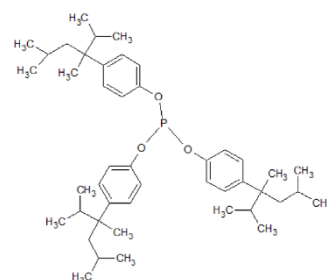
SVHC Candidate List Updated

In July 2019 the European Chemicals Agency ECHA added four new substances of very high concern (SVHCs) to the REACH Candidate List, which now contains 201 entries of chemicals for which there is a duty to inform at concentration exceeding 0.1 percent within the supply chain in the EU or when importing into the EU. And the new candidates could indeed be relevant for footwear and leather goods.

Group of Alkylphenols

Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with $\geq 0.1\%$ w/w 4-nonylphenol, branched and linear (4-NP) (CAS -)

Reason for inclusion: Endocrine disrupting properties (environment)

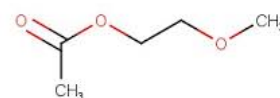


The substance belongs to the group of alkylphenols and comprises a mixture of TNPP and the previously listed SVHC candidate 4-nonylphenol. The mixture of TNPP and 4-NP can be used as an additive in the production of phenolic resins, coatings, paints, and lacquers as well as in lubricants and oils. In addition, the mixture is also a precursor of alkylphenol ethoxylates, which are still frequently used as surfactants. Therefore, almost all footwear materials come into question as sources: Leather, textiles, synthetics, adhesives, plastics, rubber. Limits may possibly be exceeded.

Group of Solvents:

2-Methoxyethyl acetate (CAS 110-49-6)

Reason for inclusion: Toxic for reproduction



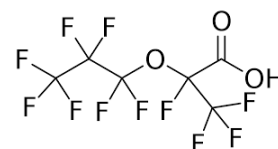
2-Methoxyethyl acetate is used as a solvent for nitrocellulose, rubber, and textile prints.

In addition to being toxic for reproduction, 2-methoxyethyl acetate is also a powerful contact poison and is harmful to aquatic organisms. It may possibly be used in footwear production but is unlikely to exceed the concentration limit in the end product; any solvents used often evaporate completely during the production process. However, the limit may be exceeded in chemicals or intermediate production stages.

Group of perfluorinated carboxylic acids (PFC):

2,3,3,3-tetrafluoro-2-(heptafluoropropoxy) propionic acid, salts and acylhalogens (HFPO-DA) (CAS -)

Reason for inclusion: Probable serious effects on human health and/or the environment

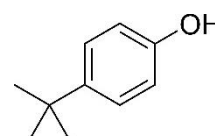


HFPO-DA are short-chain PFC derivatives which have been increasingly used as substitutes for PFOS since the use of PFOS and PFOA was banned. Their properties are almost identical to those of PFOS and PFOA. HFPO-DA are used for coating textiles and leather and for the production of Teflon-coatings (PTFE) for cooking utensils and in fire-extinguishing foams. Since many bodies of water in the EU are already contaminated with HFPO-DA, these substances may find their way into footwear materials from water or as degradation products of PFOA. However, it is unlikely that their concentration will exceed the limit of 0.1 percent. The limit may be exceeded in footwear and textiles on intentional use of the substances.

Group additives

4-tert-Butylphenol, PTBP (CAS 98-54-4)

Reason for inclusion: Endocrine-disrupting properties (environment)



4-tert-Butylphenol (PTBP) interferes with the hormone system of fish and is therefore listed as an endocrine disruptor in the environment. In addition to having a detrimental effect on the environment, PTBP has also been described as an allergen. PTBP is used as a monomer in the production of polycarbonate. Moreover, PTBP is also used in phenolic and epoxide resins, which serve as curing agents in adhesives, coatings, and paints. The concentration limit is not expected to be exceeded in completely polymerised plastics. The limit of 0.1 percent may be exceeded in adhesives used in the footwear industry. Here it is appropriate to consult the relevant safety data sheet.

The complete list of SVHC Candidates with reference to their relevance for footwear and footwear materials can be found on the [PFI-Website](#).

Please address further questions to:

Dr. Ines Anderie

Analytical Chemistry Department

Tel.: +49-(0)6331 – 2490 712

E-Mail: ines.anderie@pfi-germany.de