



SLOVENSKI STANDARD

SIST-TP CEN/TR 16417:2016

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Nadomešča:
SIST-TP CEN/TR 16417:2014

Obutev - Smernica, namenjena obutveni industriji, o snoveh, ki zelo zbuja skrb (Priloga XIV iz REACH)

Footwear - Footwear industry guideline for substances of very high concern (Annex XIV of REACH)

Schuhe - Leitfaden für die Schuhindustrie für sehr bedenkliche Substanzen (Anhang XIV von REACH)

Chaussures - Lignes directrice de l'industrie de la chaussure concernant les substances extrêmement préoccupantes (annexe XIV de REACH)

Ta slovenski standard je istoveten z: CEN/TR 16417:2016

ICS:

61.060 Obuvala Footwear

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TECHNICAL REPORT

CEN/TR 16417

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ICS 61.060

Supersedes CEN/TR 16417:2012

English Version

Footwear - Footwear industry guideline for substances of very high concern (Annex XIV of REACH)

Chaussures - Lignes directrices de l'industrie de la chaussure concernant les substances extrêmement préoccupantes (annexe XIV de REACH)

Schuhe - Leitfaden für die Schuhindustrie für sehr bedenkliche Substanzen (Anhang XIV von REACH)

This Technical Report was approved by CEN on 24 August 2015. It has been drawn up by the Technical Committee CEN/TC 309.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (CEN/TR 16417:2016) has been prepared by Technical Committee CEN/TC 309 "Footwear", the secretariat of which is held by AENOR.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes CEN/TR 16417:2012.

In comparison with the previous edition, the most significant changes are:

- inclusion of the new substances (Tables 9 to 13) published in the candidate list of Annex XIV of REACH after January 2012;
- substances from Tables 2 to 8 have been transferred to table after their final inclusion in Annex XIV of REACH;
- the new substances of Tables 9 to 13 have been added in the annex.

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CEN/TR 16417:2016 (E)

1 Scope

This Technical Report is intended to provide information on the chemicals listed in the Candidate List / Annex XIV of the Regulation (EC) 1907/2006, also known as REACH (Regulation, Evaluation and Authorisation of Chemicals) and their usage and presence in the footwear industry.

The Annex XIV, overseen by the ECHA (European Chemicals Agency), is a list of substances subject to authorization, substances of very high concern (SVHC). Before the inclusion of a substance in the Annex XIV, the procedure is strictly fixed:

- A European member state shall propose it to ECHA.
- ECHA inform all the members' state and a first enquiry is done in order to include the substance to the candidate list of Annex XIV.
- After the agreement of the member's state, ECHA includes the substances in the candidate list to Annex XIV. As soon as a substance has been included in the candidate list, it should be taken into account exactly as a SVHC.
- ECHA prioritizes the substances from the Candidate List to determine which ones should be included in the Authorisation List (Annex XIV of REACH) and therefore, subject to authorization. ECHA regularly submits recommendations to the European Commission, who will decide on the substances to be included in the Authorisation List.

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Following the evaluation of the Annex XIV substances, ECHA can take the decision to restrict the substances. This restriction may take the form of an authorization for use, an authorization only for specific applications in specified fields or, in some cases, a complete ban on the use of the substance.

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During the evaluation process, these chemicals are not forbidden or limited in use. The regulation requires that the user shall be informed if one or more of these substances are present in any part of the article in quantity over 0,1 % by weight.

This Technical Report shows which of these chemicals may be present in footwear materials and the footwear industry in order to help shoe manufacturers to collect mandatory information from suppliers regarding the content of these chemicals and, at same time, allow them to provide accurate information to their customers.

The test methods reported in Annex A are informative only to identify where these chemicals may be found and control the use along the supply chain where their suppliers are not under the jurisdiction of the REACH Regulation.

Taking into account final decision of the European Commission, ECHA, implements the Annex XIV and the candidate list to Annex XIV of REACH, regularly. This revision interval is difficult to follow by the standardization procedures.

Therefore this document reflects the situation at the date of June 2014. This document will be annually revised.

This Technical Report does not concern the substances for which restriction have been already enacted under Annex XVII of REACH.

NOTE Chemicals that are restricted under Annex XVII, are identified as a category 1 chemical in CEN ISO/TR 16178.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1

Very Persistent and Very Bioaccumulative substance

vPvB

substance that fulfils the criteria of both the sections below:

- a) Persistence
 - 1) the half-life in marine, fresh- or estuarine water is higher than 60 d, or
 - 2) the half-life in marine, fresh- or estuarine water sediment is higher than 180 d, or
 - 3) the half-life in soil is higher than 180 d
- b) Bioaccumulation
 - 1) the bioconcentration factor is greater than 5 000

2.2

Persistent, Bioaccumulative and Toxic substance

PBT

substance that fulfils all three of the criteria of the sections below:

- a) Persistence
 - 1) the half-life in marine water is higher than 60 d, or
 - 2) the half-life in fresh- or estuarine water is higher than 40 d, or
 - 3) the half-life in marine sediment is higher than 180 d, or
 - 4) the half-life in fresh- or estuarine water sediment is higher than 120 d, or
 - 5) the half-life in soil is higher than 120 d
- b) Bioaccumulation
 - 1) the bioconcentration factor (BCF) is higher than 2 000
- c) Toxicity
 - 1) the long-term no-observed effect concentration (Noec) for marine or freshwater organisms is less than 0,01 mg/l, or
 - 2) the substance is classified as carcinogenic (category 1 or 2), mutagenic (category 1 or 2) or toxic for reproduction (category 1, 2, or 3), or
 - 3) there is other evidence of chronic toxicity, as identified by the classifications: T, R48, or Xn, R48 according to Directive 67/548/EEC

3 SVHC potentially present in the footwear industry

3.1 General

The following subclauses contain tables with the substances of very high concern (SVHC) that could be found in the footwear or in the footwear components.

3.2 SVHC included in Annex XIV of REACH

Table 1 includes the substances of very high concern included, at the moment of publication of this Technical Report, in Annex XIV of REACH after the 17th April 2014.

Table 1 — Identification of substances of very high concern included in Annex XIV of REACH — after the 17th April 2014

ID	Substance name	CAS number	EC number	Group	Reason for inclusion	Occurrence in footwear
1.1	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	201-329-4		vPvB (article 57e)	Not used in footwear or footwear components
1.2	4,4'-Diaminodiphenylmethane	101-77-9	202-974-4	Aryl amine	Carcinogenic (article 57a)	Not used as a free compound This substance can be detected after the degradation of: — azo colorant, see Annex XVII of Reach) — PU material, (false positive result is possible, generated as a marker in testing of PU material)
1.3	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α -HBCDD, β -HBCDD, γ -HBCDD)	25637-99-4 and 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8)	247-148-4 and 221-695-9		PBT (article 57d)	Not used in footwear or footwear components (flame retardant for electronics)
1.4 ^a	Bis (2-ethyl(hexyl)phthalate) (DEHP)	117-81-7	204-211-0	Phthalate	Toxic for reproduction (article 57c)	Possible (concentration higher than 0,1 % possible)
1.5 ^a	Benzyl butyl phthalate (BBP)	85-68-7	201-622-7	Phthalate	Toxic for reproduction (article 57c)	Possible (concentration higher than 0,1 % possible)

ID	Substance name	CAS number	EC number	Group	Reason for inclusion	Occurrence in footwear
1.6 a	Dibutyl phthalate (DBP)	84-74-2	201-557-4	Phthalate	Toxic for reproduction (article 57c)	Possible (concentration higher than 0,1 % possible)
1.7	2,4 - Dinitrotoluene (2,4-DNT)	121-14-2	204-450-0	Aromatic hydrocarbons	Carcinogenic (article 57a)	Not used in footwear or footwear components
1.8	Tris(2-chloroethyl)phosphate (TCEP)	115-96-8	204-118-5	Tris(2-chloroethyl) phosphate (TCEP)	Toxic for reproduction (article 57c)	Not used in footwear or footwear components (flame retardant for furniture, plasticizer for PU-PVC)
1.9	Diarsenic pentaoxide	1303-28-2	215-116-9	Arsenic compounds	Carcinogenic (article 57a)	Not used in footwear or footwear components
1.10	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2	215-693-7	Substances containing lead	Carcinogenic and toxic for reproduction (articles 57a and 57c)	Possible pigment in certain surface coating
1.11	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8	235-759-9	Substances containing lead	Carcinogenic and toxic for reproduction (articles 57a and 57c)	Possible pigment in certain surface coating
1.12	Diarsenic trioxide	1327-53-3	215-481-4	Arsenic compounds	Carcinogenic (article 57a)	Not used in footwear or footwear components
1.13	Lead chromate	7758-97-6	231-846-0	Substances containing chromate	Carcinogenic and toxic for reproduction (articles 57a and 57c)	Possible pigment in certain surface coating
1.14 a	Diisobutyl phthalate (DIBP)	84-69-5	201-553-2	phthalate	Toxic for reproduction (article 57c)	Possible (concentration higher than 0,1 % possible)

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ID	Substance name	CAS number	EC number	Group	Reason for inclusion	Occurrence in footwear
1.15	Trichloroethylene	79-01-6	201-167-4	Chlorinated aliphates	Carcinogenic (article 57a)	Solvent used in not flammable adhesive, volatile product can be present only as a residue More possible to detect in the footwear packaging than in the footwear
1.16	Chromium trioxide	1333-82-0	215-607-8	Substances containing chromium	Carcinogenic and mutagenic (articles 57a and 57b)	Not used in footwear or footwear components (Cr VI possible in leather at low concentration)
1.17	Chromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid	7738-94-5, 13530-68-2, not yet assigned	231-801-5, 236-881-5, not yet assigned	Substances containing chromium	Carcinogenic (article 57a)	Not used in footwear or footwear components (Cr VI possible in leather at low concentration)
1.18	Sodium dichromate	7789-12-0 and 10588-01-9	234-190-3	Substances containing chromate	Carcinogenic, mutagenic and toxic for reproduction (articles 57a, 57b and 57c)	Not used in footwear or footwear components (Cr VI possible in leather at low concentration)
1.19	Potassium dichromate	7778-50-9	231-906-6	Substances containing chromate	Carcinogenic, mutagenic and toxic for reproduction (articles 57a, 57b and 57c)	Not used in footwear or footwear components (Cr VI possible in leather at low concentration)
1.20	Ammonium dichromate	7789-09-5	232-143-1	Substances containing chromate	Carcinogenic, mutagenic and toxic for reproduction (articles 57a, 57b and 57c)	Not used in footwear or footwear components (Cr VI possible in leather at low concentration)
1.21	Potassium chromate	7789-00-6	232-140-5	Substances containing chromate	Carcinogenic and mutagenic (articles 57a and 57b)	Not used in footwear or footwear components (Cr VI possible in leather at low concentration)

ID	Substance name	CAS number	EC number	Group	Reason for inclusion	Occurrence in footwear
1.22	Sodium chromate	7775-11-3	231-889-5	Substances containing chromate	Carcinogenic, mutagenic and toxic for reproduction (articles 57a, 57b and 57c)	Not used in footwear or footwear components (Cr VI possible in leather at low concentration)
1.23	Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4	500-036-1	aldehyde	Carcinogenic (article 57a)	Reaction products Not used in footwear or footwear components
1.24	Arsenic acid	7778-39-4	231-901-9	Arsenic compounds	Carcinogenic article 57a)	Not used in footwear or footwear components
1.25	Bis(2-methoxyethyl) ether	111-96-6	203-924-4	Dihydroxy ether	Carcinogenic (article 57a)	Not used in footwear or footwear components volatile product, traces can be present only as a residue
1.26	1,2-Dichloroethane; ethylene dichloride	107-06-2	203-458-1	Chlorinated aliphate	Carcinogenic (article 57a)	Solvent used in not flammable adhesive, volatile product can be present only as a residue More possible to detect in the packaging of footwear than in the footwear itself
1.27	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	202-918-9	Aryl amine	Carcinogenic (article 57a)	Used as a curing agent in PU industry, Possible in certain technical PU Only low level residue will be expected (less than 0,1 %)
1.28	Dichromium tris(chromate)	24613-89-6	246-356-2	Substances containing chromium	Carcinogenic (article 57a)	Not used in footwear or footwear components (Cr VI possible in leather at low concentration)

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ID	Substance name	CAS number	EC number	Group	Reason for inclusion	Occurrence in footwear
1.29	Strontium chromate	7789-06-2	232-142-6	Substances containing chromate	Carcinogenic (article 57a)	Not used in footwear or footwear components (Cr VI possible in leather at low concentration)
1.30	Potassium hydroxyoctaoxodizincatedi chromate	11103-86-9	234-329-8	Substances containing chromate	Carcinogenic (article 57a)	Not used in footwear or footwear components (Cr VI possible in leather at low concentration)
1.31	Pentazinc chromate octahydroxide	49663-84-5	256-418-0	Substances containing chromium	Carcinogenic (article 57a)	Not used in footwear or footwear components (Cr VI possible in leather at low concentration)
<p>^a These substances are especially important for footwear and footwear components.</p>						

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3.3 SVHC included in the candidate list of Annex XIV of REACH

The following tables include the substances of very high concern included, at the moment of publication of this Technical Report, in the candidate list of Annex XIV of REACH. Different tables have been drafted to identify the date of inclusion in the candidate list.

Table 2 — Identification of substances of very high concern included in the candidate list for Annex XIV of REACH — Date of inclusion 28th October 2008

ID	Substance name	CAS number	EC number	Group	Reason for inclusion	Occurrence in footwear
2.1	Bis(tributyltin) oxide (TBTO)	56-35-9	200-268-0	Substances containing tin	PBT (article 57d)	Not used in footwear or footwear components Use in the pass as a preservative agent
2.2 ^a	Anthracene	120-12-7	204-371-1	PAHs	PBT (article 57d)	PAH compound Possible contaminant (recycled materials, leather fat liquor, black plastics, rubbers)
2.3	Lead hydrogen arsenate	7784-40-9	232-064-2	Arsenic compounds	Carcinogenic and toxic for reproduction (articles 57a and 57c)	Not used in footwear or footwear components
2.4	Triethyl arsenate	15606-95-8	427-700-2	Arsenic compounds	Carcinogenic (article 57a)	Not used in footwear or footwear components
2.8 ^a	Alkanes, C10-13, chloro [Short Chain Chlorinated paraffins] (SCCP)	85535-84-8	287-476-5	Chlorinated aliphates	PBT and vPvB (articles 57d and 57e)	Possible (flame retardant for textile or fat liquor for leather)
	See Table 1 – 1.3					
	See Table 1 – 1.2					
	See Table 1 – 1.6					
	See Table 1 – 1.18					
	See Table 1 – 1.7					
	See Table 1 – 1.9					
	See Table 1 – 1.4					
	See Table 1 – 1.5					
	See Table 1 – 1.12					
	See Table 3 – 3.6					
^a	These substances are especially important for footwear and footwear components.					