

# SLOVENSKI STANDARD SIST EN 943-1:2015/oprA1:2017

01-oktober-2017

Varovalna obleka pred nevarnimi trdnimi, tekočimi in plinastimi kemikalijami, vključno s tekočimi aerosoli in trdnimi delci - 1. del: Varnostne zahteve za varovalno oblačilo tipa 1 (neprepustno za plin) pred kemikalijami - Dopolnilo A1

Protective clothing against dangerous solid, liquid and gaseous chemicals, including liquid and solid aerosols - Part 1: Performance requirements for Type 1 (gas-tight) chemical protective suits

iTeh STANDARD PREVIEW
Schutzkleidung gegen gefährliche feste, flüssige und gasförmige Chemikalien, einschließlich Flüssigkeitsaerosole und feste Partikell Teil 1: Leistungsanforderungen für Typ 1 (gasdichte) Chemikalienschutzkleidung

SIST EN 943-1:2015/kprA1:2018

https://standards.iteh.ai/catalog/standards/sist/3149cbdc-bfcd-4dc5-8559-

Habillement de protection contre les produits chimiques dangereux solides, liquides et gazeux, y compris les aérosols liquides et les particules solides - Partie 1: Exigences de performance des combinaisons de protection chimique étanches aux gaz (type 1)

Ta slovenski standard je istoveten z: EN 943-1:2015/prA1:2017

ICS:

13.340.10 Varovalna obleka Protective clothing

SIST EN 943-1:2015/oprA1:2017 en.fr.de SIST EN 943-1:2015/oprA1:2017

# iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN 943-1:2015/kprA1:2018 https://standards.iteh.ai/catalog/standards/sist/3149cbdc-bfcd-4dc5-8559-4e3ce8e90e0a/sist-en-943-1-2015-kpra1-2018 EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM DRAFT EN 943-1:2015

prA1

August 2017

ICS 13.340.10

#### **English Version**

Protective clothing against dangerous solid, liquid and gaseous chemicals, including liquid and solid aerosols - Part 1: Performance requirements for Type 1 (gas-tight) chemical protective suits

Habillement de protection contre les produits chimiques dangereux solides, liquides et gazeux, y compris les aérosols liquides et les particules solides - Partie 1: Exigences de performance des combinaisons de protection chimique étanches aux gaz (type 1)

Schutzkleidung gegen gefährliche feste, flüssige und gasförmige Chemikalien, einschließlich Flüssigkeitsaerosole und feste Partikel - Teil 1: Leistungsanforderungen für Typ 1 (gasdichte) Chemikalienschutzkleidung

This draft amendment is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 162.

This draft amendment A1, if approved, will modify the European Standard EN 943-1:2015. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions. 2015-kpral-2018

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

**Warning**: This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

# **Contents**

Euro	pean foreword	4
1	Modification to Clause 1, Scope	5
2	Modifcation to Clause 2 (and whole document)	5
3	Modification to Clause 3, Terms and definition	5
4	Modification to 4.1	5
5	Modification to 4.2	5
6	Modification to 4.3	6
7	Modification to 4.4	6
8	Addition of new 4.6	6
9	Modification to 5.1	6
10	Modification to 5.2	7
11	Modification to 5.3	7
12	Modification to 5.5	7
13	Modification to 5.6.5  Teh STANDARD PREVIEW  Modification to 5.7	8
14	Modification to 5.7 Modification to 5.7	8
15	Modification to 5.8.1 (standards.iteh.ai)	
16	Modification to 5.10sisten 943-1:2015/kprA1:2018	
17	Modification of 5.120s://standards.iteh.ai/catalog/standards/sist/3149cbdc-bfcd-4dc5-8559-	9
18	4e3ce8e90e0a/sist-en-943-1-2015-kpra1-2018  Modification to 5.13.4	9
19	Modification to 5.16	9
20	Modification to 6.1	9
21	Modification to 6.2.2	9
22	Modification to 6.2.3	9
23	Modification to 6.3	10
24	Modification to 6.4	10
25	Modification to 6.7	10
26	Modification to Clause 7	10
27	Modification to Clause 8	10
28	Modification to A.1	11
29	Modification to A.5	11
30	Modification to A.8.1	11
31	Modification to A.8.2	12
32	Modification to Annex B, B.2	12
33	Modification to Annex C	12

## SIST EN 943-1:2015/oprA1:2017

# EN 943-1:2015/prA1:2017 (E)

34	Modification to Table E.1	. 12
35	Modification to Annex ZA	. 12
36	Modification to Bibliography	14

# iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN 943-1:2015/kprA1:2018</u> https://standards.iteh.ai/catalog/standards/sist/3149cbdc-bfcd-4dc5-8559-4e3ce8e90e0a/sist-en-943-1-2015-kpra1-2018

# **European foreword**

This document (EN 943-1:2015/prA1:2017) has been prepared by Technical Committee CEN/TC 162 "Protective clothing including hand arm protection and lifejackets", the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document has been prepared under a standardization request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of Regulation (EU) 2016/425.

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

# iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN 943-1:2015/kprA1:2018</u> https://standards.iteh.ai/catalog/standards/sist/3149cbdc-bfcd-4dc5-8559-4e3ce8e90e0a/sist-en-943-1-2015-kpra1-2018

### 1 Modification to Clause 1, Scope

*Replace the first sentence in the 3<sup>rd</sup> paragraph:* 

"This standard does not establish minimum criteria for protection for non-chemical hazards, e.g. radiological, fire, heat, explosive, infective agents."

bv.

"This standard does not establish minimum criteria for protection for non-chemical hazards, e.g. radiological, fire, heat, explosive hazards, infective agents."

*Replace the second sentence in the 4th paragraph:* 

"The basic performance criteria for the components such as gloves, boots or respiratory protective equipment are given in other European Standards."

by

"The basic performance criteria for the components gloves, boots or respiratory protective equipment are given in other standards."

Add the new paragraph after the last paragraph:

"Chemicals such as violently air sensitive reagents, unstable explosives and cryogenic liquids have not been considered since protection against these additional hazards is beyond the scope of this standard."

# 2 Modification to Clause 2 (and whole document) VIEW

Replace "EN 14325:2004" in the Clause 2 and at the appropriate place by "FprEN 14325:2017".

### 3 Modification to Clause 3, Terms and definition

https://standards.iteh.ai/catalog/standards/sist/3149cbdc-bfcd-4dc5-8559-4e3ce8e90e0a/sist-en-943-1-2015-kpra1-2018

*Replace existing 3.8 by:* 

"3.8

#### gas-tight chemical protective suit

one-piece garment with hood, gloves and boots which, when worn with appropriate respiratory protective devices, provides the wearer a high degree of protection against harmful liquids, particles and gaseous or vapour-phase contaminants"

#### 4 Modification to 4.1

*Add new second paragraph to 4.1:* 

"Pre-conditioning and conditioning shall be carried out in accordance with EN 14325:2004, 4.2 and 4.3 for those materials and components intended to be reused."

#### 5 Modification to 4.2

Delete second paragraph from 4.2:

"Pre-conditioning and conditioning shall be carried out in accordance with EN 14325:2004, 4.2 and 4.3."

Add sentence to the end of 4.2, before Table 1:

"Where safety footwear is tested for permeation resistance, the test specimen shall be taken from the thinnest point of the footwear above the join to the sole."

*In Table 1, add after the column Boots a Footnote a).* 

Add at the end of the table the sentence

"a) Where safety footwear is tested for permeation resistance, the test specimen shall be taken from the thinnest point of the footwear above the join to the sole."

Modify Table 1 Row 9 'Visor, face mask, face seal (if fitted)' as follows:

Delete "face mask" and add a footnote "c" after "(if fitted)" and add as new Footnote c after Footnote b the following:

"c) The testing applies to visors and face seals that are fitted and exposed to the environment during intended use."

#### Modification to 4.3

Delete the first sentence.

Delete the sentence "Closure assemblies (e.g. zipper) shall be tested without any cover."

Replace in Table 2, footnote a)

"too high permeation"

by

"misleading high permeation"

In Table 2 delete "EN ISO 6529" in footnote c.

(standards.iteh.ai)

#### Modification to 4.4 7

Delete in 1st paragraph "and bonded in facemasks" (standards/sist/3149cbdc-bfcd-4dc5-8559-

4e3ce8e90e0a/sist-en-943-1-2015-kpra1-2018

#### Addition of new 4.6

Add new subclause 4.6 Gloves:

"4.6 Gloves

Only EN 374-1 approved gloves shall be used. The gloves may be modified be fitted to the suit. The additional requirements of this standard shall be fulfilled. The puncture, cut and abrasion resistance of the gloves or glove combination used shall be reported as required in EN 943-1, 8, l).

As EN 374-1 has only very limited mechanical and thermal requirements it may be appropriate to use an over-glove e.g. according to EN 659 to provide greater mechanical or thermal protection."

#### Modification to 5.1 9

Add as second sentence:

"Where not otherwise specified, all tests shall be performed on specimens two (suits/components/materials as applicable)."

*Delete in 2nd Paragraph the half sentence* 

"when tested as a complete suit, or when specified as tested with the related samples."

Remove parenthesis for type 1c in Table 3.

*Delete* "(V)" for 1a and 1b for 5.13.2 and 5.13.3 in Table 3.

### 10 Modification to 5.2

Delete 5.2 and renumber all subsequent clauses.

## 11 Modification to 5.3

Rename the title of 5.3 to:

"5.3 Simulation of accidental extreme storage conditions"

*Delete in the first sentence of 5.3 the wording in the brackets:* 

"(see 5.4 and 5.5)."

## 12 Modification to 5.5

Replace existing Table 4 by the following:

Suit type	Inward leakage
Type 1a	Not required (5.4 applies)
Type 1b with full face mask permanently joined to the suit (an assemblage)	Not required (5.4 applies)
Type 1b using a full face mask which is not permanently joined to the suit*  *Face mask used with Type 1 b suits worn as I intended by the manufacturer, doesn't need to be retested for IL in the breathing zone in 943-1: accordance with the requirement clause of stand this standard. For the design and use is 0a/sist-endentical with EN 136 type tested models. The suits have to be tested.  *Face masks worn not directly on the user's skin, but with means of suit material or barrier material between skin and sealing line of the masks, need to be reevaluated for IL in the breathing zone, due to the modified sealing system.	Inward leakage test (Annex A) with inward leakage not greater than 0,05% when measured within the suit being considered as a measure of the total inward leakage of the whole suit plus icd-4dc5-8559-4 Inward leakage feest with inward leakage not greater than 0,05% when measured according Annex A into the full face mask.
Type 1c	5.4 plus Inward leakage test (Annex A) with inward leakage not greater than 0,05 % measured within the suit being considered as a measure of the total inward leakage of the whole suit.