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GAASILISTE KEMIKAALIDE, SEALHULGAS VEDELATE JA
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TOIMIVUSNÕUDED 1. TÜÜPI (GAASIKINDLATELE)
KEMIKAALIKAITSEÜLIKONDADELE**

**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**

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

See Eesti standard EVS-EN 943-1:2015 sisaldab Euroopa standardi EN 943-1:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 943-1:2015 consists of the English text of the European standard EN 943-1:2015.
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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

Vêtements 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 European Standard was approved by CEN on 27 June 2015.

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

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European foreword

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

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2016, and conflicting national standards shall be withdrawn at the latest by February 2016.

This document supersedes EN 943-1:2002.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

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

For details of the significant changes made since EN 943-1:2002 please refer to Annex E.

EN 943 consists of the following parts:

EN 943-1, *Protective clothing against solid, liquid and gaseous chemicals, including liquid and solid aerosols — Part 1: Performance requirements for Type 1 (gas-tight) chemical protective suits*

EN 943-2, *Protective clothing against solid, liquid and gaseous chemicals, including aerosols — Part 2: Performance requirements for Type 1 gas-tight chemical protective suits for emergency teams (ET)*

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.

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies the minimum requirements, test methods, marking and information supplied by the manufacturer for ventilated and non-ventilated gas-tight chemical protective suits.

It specifies full body personal protective ensembles to be worn for protection against solid, liquid and gaseous chemicals, including liquid and solid aerosols.

This standard does not establish minimum criteria for protection for non-chemical hazards, e.g. radiological, fire, heat, explosive, infective agents. This type of equipment is not intended for total immersion in liquids.

The seams, joins and assemblages attaching the accessories are included within the scope of this standard. This standard specifies only supplementary requirements for components. The basic performance criteria for the components gloves, boots or respiratory protective equipment are given in other European Standards.

Particulate protection is limited to physical penetration of the particulates only.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 132, *Respiratory protective devices - Definitions of terms and pictograms*

EN 136:1998, *Respiratory protective devices - Full face masks - Requirements, testing, marking*

EN 388, *Protective gloves against mechanical risks*

EN 1073-2, *Protective clothing against radioactive contamination - Part 2: Requirements and test methods for non-ventilated protective clothing against particulate radioactive contamination*

EN 12021, *Respiratory equipment - Compressed gases for breathing apparatus*

EN 13274-4:2001, *Respiratory protective devices - Methods of test - Part 4: Flame tests*

EN 14593-1:2005, *Respiratory protective devices - Compressed air line breathing apparatus with demand valve - Part 1: Apparatus with a full face mask - Requirements, testing, marking*

EN 14594:2005, *Respiratory protective devices - Continuous flow compressed air line breathing apparatus - Requirements, testing, marking*

EN 14325:2004, *Protective clothing against chemicals - Test methods and performance classification of chemical protective clothing materials, seams, joins and assemblages*

CEN ISO/TR 11610, *Protective clothing - Vocabulary (ISO/TR 11610)*

EN ISO 13688:2013, *Protective clothing - General requirements (ISO 13688:2013)*

EN ISO 13982-2, *Protective clothing for use against solid particulates - Part 2: Test method of determination of inward leakage of aerosols of fine particles into suits (ISO 13982-2:2004)*

EN ISO 17491-3, *Protective clothing - Test methods for clothing providing protection against chemicals - Part 3: Determination of resistance to penetration by a jet of liquid (jet test) (ISO 17491-3:2008)*

EN ISO 20345:2011, *Personal protective equipment - Safety footwear (ISO 20345:2011)*

ISO 17491-1:2012, *Protective clothing — Test methods for clothing providing protection against chemicals — Part 1: Determination of resistance to outward leakage of gases (internal pressure test)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in CEN ISO/TR 11610 and EN 132 together with the following apply.

3.1
assemblage
permanent fastening between two or more different garments, or between the protective clothing and accessories obtained for example by sewing, welding, vulcanizing, gluing

[SOURCE: EN 1073-1:1998]

3.2
join
non-permanent fastening between two different garments, or between protective clothing and accessories

3.3
bootees
sock like gastight extension of the suit leg that encapsulates the entire foot

Note 1 to entry: Intended to be worn inside separate (i.e. not attached) protective boots or protective shoes.

3.4
cleaning
removal of contamination or soiling

Note 1 to entry: There are several separate types of cleaning that may be applicable to chemical protective clothing. The purpose of each type of cleaning is distinct, though the same operation may, under some circumstances, fulfil the requirements of more than one type of cleaning.

3.4.1
hygienic cleaning
operation to remove soiling that originates from the body of the wearer of the suit

Note 1 to entry: The purpose of this type of cleaning is to render the inside of the suit sufficiently clean that another wearer can then safely and comfortably wear it. Hygienic cleaning can consist of rinsing or wiping the inside of the suit with a disinfectant solution.

Note 2 to entry: An example of soiling intended to be removed by hygienic cleaning is perspiration.

3.4.2
washing
operation to remove general soiling that does not originate from either the wearer of the suit or the chemical hazards against which the suit is worn as protection

Note 1 to entry: An example of soiling intended to be removed by washing is mud.