



BSI Standards Publication

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

This is a preview of "BS EN 943-1:2015+A1:...". [Click here to purchase the full version from the ANSI store.](#)

National foreword

This British Standard is the UK implementation of EN 943-1:2015+A1:2019. It supersedes BS EN 943-1:2015, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PH/3/3, Chemical, Biological, Radioactive and Nuclear Personal Protective Equipment.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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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 and includes Amendment A1 approved by CEN on 24 October 2018.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists 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.

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European foreword

This document (EN 943-1:2015+A1:2019) 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 September 2019, and conflicting national standards shall be withdrawn at the latest by September 2019.

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

This document includes Amendment 1 approved by CEN on 2018-10-24.

This document supersedes A1 EN 943-1:2015 A1.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

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)*

According to the CEN/CENELEC Internal Regulations, the national standards organizations 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, Serbia, 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.

A1 This standard does not establish minimum criteria for protection for non-chemical hazards, e.g. radiological, fire, heat, explosive hazards, infective agents. **A1** This type of equipment is not intended for total immersion in liquids.

A1 The seams, joins and assemblages attaching the accessories are included within the scope of this standard. The basic performance criteria for the components such as gloves, boots or respiratory protective equipment are given in other Standards, supplementary requirements are provided in this standard. **A1**

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

A1 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. **A1**

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*

A1 EN 1073-1:2016+A1:2018, *Protective clothing against solid airborne particles including radioactive contamination — Part 1: Requirements and test methods for compressed air line ventilated protective clothing, protecting the body and the respiratory tract* **A1**

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*

A1 EN 14325:2018 **A1**, *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)*