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KÄITAJATELE JA PESTITSIIDIDEGA TÖÖDELDUD ALALE
NAASVATE TÖÖTAJATE KAITSERIIETUSELE

Protective clothing - Performance requirements for
protective clothing worn by operators applying
pesticides and for re-entry workers (ISO 27065:2017)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 27065:2017 sisaldab Euroopa standardi EN ISO 27065:2017 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 27065:2017 consists of the English text of the European standard EN ISO 27065:2017.
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English Version

Protective clothing - Performance requirements for
protective clothing worn by operators applying pesticides
and for re-entry workers (ISO 27065:2017)

Vêtements de protection - Exigences de performance
pour les vêtements de protection portés par les
opérateurs appliquant des pesticides et pour les
travailleurs de rentrée (ISO 27065:2017)

Schutzkleidung - Leistungsanforderungen an
Schutzkleidung für die Anwender von
Pflanzenschutzmitteln sowie Personen für
Nachfolgearbeiten (ISO 27065:2017)

This European Standard was approved by CEN on 12 September 2017.

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

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

European foreword

This document (EN ISO 27065:2017) has been prepared by Technical Committee ISO/TC 94 “Personal safety - Protective clothing and equipment” in collaboration with 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of an identical text or by endorsement, at the latest by May 2018, and conflicting national standards shall be withdrawn at the latest by May 2018.

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 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.

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.

Endorsement notice

The text of ISO 27065:2017 has been approved by CEN as EN ISO 27065:2017 without any modification.

Annex ZA (informative)

Relationship between this European Standard and the essential requirements of EU Directive 89/686/EEC [1989 L399] aimed to be covered

This European Standard has been prepared under a Commission's standardization request M/031 to provide one voluntary means of conforming to essential requirements of Directive 89/686/EEC on the approximation of the laws of the Member States relating to personal protective equipment [1989 L399].

Once this document is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential requirements of that Directive and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Annex II of the Directive 89/686/EEC Personal Protective Equipment

11 Essential Requirements of Directive 89/686/EEC	Clause(s)/sub-clause(s) of this EN	12 Remarks/Notes
1.1.1 Ergonomics	8.1; 8.2	
1.1.2.1 Highest level of protection possible	8.1; 8.2	
1.1.2.2 Classes of protection appropriate to different levels of risk	4	
1.2.1 Absence of risks and other inherent nuisance factors	6.7; 8.1	
1.2.1.1 Suitable constituent materials		Verified in ISO 13688
1.2.1.2 Satisfactory surface condition of all PPE parts in contact with the user		Verified in ISO 13688
1.2.1.3 Maximum permissible user impediment	8.1; 8.2	
1.3.1 Adaptation of PPE to user morphology	8.1; 8.2	
1.3.2 Lightness and design strength	6.5, 6.6, 7.4	
1.4 Information supplied by the manufacturer	10	
2.4 PPE subject to ageing	5.1	
2.12 PPE bearing one or more identification or recognition marks directly or indirectly relating to health and safety	9	
3.10 Protection against dangerous substances and infective agents	6.2, 6.3, 6.4; 7.2, 7.3, 8.3.1; 8.3.2	
3.10.2 Protection against cutaneous and ocular contact		

WARNING — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 94, *Personal safety — Protective clothing and equipment*, Subcommittee SC 13, *Protective clothing*.

This second edition cancels and replaces the first edition (ISO 27065:2011), which has been technically revised.

The main changes compared to the previous edition are as follows:

- major changes have been made to Levels 1 and 3 requirements;
- protective clothing for re-entry workers has been included in the scope.

Introduction

This document addresses the performance requirements for protective clothing worn by operators handling liquid pesticide products as well as protective clothing worn by re-entry workers. It includes requirements for protective clothing (e.g. shirts, jackets, trousers, and coveralls) and partial-body protective clothing (e.g. aprons, smocks, protective sleeves, hoods/caps, and material placed below knapsack/backpack sprayers). Requirements for protective clothing, including partial-body, constructed with multiple layers or materials are also included in this document.

This document classifies protective clothing, including partial-body, into three performance levels. A brief description for the three levels is given below.

Level C1 protective clothing, including partial-body, is suitable when the potential risk is relatively low. Level C1 protective clothing provides the least protection and is not suitable for use with concentrated pesticide formulations. It can be used as the base protective clothing with additional items worn when the potential risk is relatively higher. See [Annex F](#) for additional information on risk assessment and use of PPE for risk mitigation.

Level C2 protective clothing, including partial-body, is suitable when it has been determined that the protection required is higher than that provided by Level C1 protective clothing. Level C2 protective clothing typically provides a balance between comfort and protection. This protective clothing is not suitable for use with concentrated pesticide formulations. It can be used as the base protective clothing with additional items worn when the potential risk is relatively higher.

Level C3 protective clothing, including partial-body, is suitable for use when it has been determined that the potential risk is high. Precautionary measures such as short duration for use are necessary for Level C3 suits/coveralls that may cause heat build-up resulting in heat exhaustion/stress. Level C3 protective clothing, including partial-body, is suitable for use with diluted as well as concentrated pesticides.

Personal Protective Equipment (PPE) is often used for risk mitigation. See [Annex F](#) for information on risk assessment and use of PPE for risk mitigation. Since protective clothing can be contaminated in various ways (e.g. fine spray, contact with wet surface, contact with pesticide product sprayed under pressure, contact between the protective clothing and a contaminated surface), laboratory test methods used in the standard rate materials and clothing rather than simulate the various field conditions.

ISO 16602 focuses on industrial chemicals, whereas this document focuses on protection against pesticides that are frequently applied in aqueous solutions. Penetration, permeation, and repellency tests in ISO 16602 are typically done with neat chemicals not used in pesticide application. In this document, penetration, permeation, and repellency tests are conducted with a mixture. The test chemical selected for testing is an emulsifiable concentrate that is representative of a worst case scenario for penetration and repellency. Testing for penetration is conducted with diluted formulation. For permeation, the standard provides a provision for testing with diluted formulation and concentrate. In addition, it allows for testing with additional pesticide products, if required, based on risk assessment conducted for the required pesticide product.

This document is intended for fabric and protective clothing manufacturers and pesticide product manufacturers, as well as trainers, regulators, and other individuals or organizations that make decisions regarding protective clothing for protection against pesticide products.