INTERNATIONAL STANDARD

ISO 23616

> First edition 2022-04

Cleaning, inspection and repair of firefighters' personal protective equipment (PPE)

yage, riduelle (. Nettoyage, inspection et réparation des équipements de protection



Reference number ISO 23616:2022(E)



© ISO 2022

tation, no part of 'including plot' 'om either'. All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office CP 401 • Ch. de Blandonnet 8 CH-1214 Vernier, Geneva Phone: +41 22 749 01 11 Email: copyright@iso.org Website: www.iso.org

Published in Switzerland

Contents					Page		
Fore	word				v		
Intr	oductio	n			vi		
1	Scon	e			1		
2							
3							
4	General information 4.1 General						
	4.1						
	4.2	Management system					
5	Insp	ection			4		
	5.1						
	5.2 Advanced inspection						
6							
	6.1 6.2						
	6.3						
	6.4	Cleani	ng procedures		6		
		6.4.2 6.4.3	Advanced cleaning		6 6		
7	Done		navaneca cicaning				
	RepairRecords						
8	Reco 8.1						
	8.2			erns			
9	Garn			4			
	9.1						
		9.1.1					
		9.1.2	Routine inspection		8		
		9.1.3 9.1.4		<u></u>			
	9.2			,			
		9.2.1	General		10		
		9.2.2 9.2.3					
	9.3						
	9.4						
	9.5						
		9.5.1 9.5.2					
		9.5.3	Advanced repair		14		
10	Glov	e	=				
10	10.1						
			<u>=</u>				
	10.2						
	_0.2						
	400		O O				
	10.3 Drying				15		

ISO 23616:2022(E)

11	Heln	1et	16			
	11.1	Inspection				
		11.1.1 General				
		11.1.2 Routine inspection	16			
		11.1.3 Advanced inspection				
	11.2	Cleaning				
		11.2.1 General	17			
		11.2.2 Routine cleaning				
		11.2.3 Advanced cleaning				
	11.3	Drying				
	11.4	Repair				
12	Foot	Footwear				
	12.1	Inspection				
		12.1.1 General				
		12.1.2 Routine inspection				
	40.0	12.1.3 Advanced inspection				
	12.2					
		12.2.1 General				
		12.2.2 Routine cleaning				
	12.3	12.2.3 Advanced cleaning				
	12.3	Repair				
		•				
13		hood				
	13.1	Inspection				
		13.1.1 General				
		13.1.2 Routine inspection				
	13.2	•	2			
	13.2	13.2.1 General				
		13.2.2 Routine cleaning				
		13.2.3 Advanced cleaning	23			
	13.3	Drying	24			
	13.4	Repair				
14	Rocn	piratory protective devices (RPD)	24			
14	14 1	General	24			
		Inspection				
		14.2.1 General				
		14.2.2 Inspection of the frame				
		14.2.3 Inspection of the compressed air cylinder				
		14.2.4 Inspection of the face mask	27			
		14.2.5 Inspection of the valves	28			
	14.3	Cleaning				
		14.3.1 Frame cleaning - straps - buckles - belt				
		14.3.2 Cleaning the demand valve				
		14.3.3 Cleaning the cylinder				
		14.3.4 Cleaning the mask				
	111	14.3.5 Cleaning of the Control and Safety Instrument (ICS)				
	14.4	Drying				
	14.5	Repair				
Ann	ex A (in	formative) Records of all items of firefighters' PPE	30			
Ann	ex B (in	formative) Post incident management of contaminated PPE	32			
Bihli	iogranł	ıy	37			
	-0-4P1	<i>J</i>				

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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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

For an explanation of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 94, *Personal safety — Personal protective equipment*, Subcommittee SC 14, *Firefighters' personal equipment*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

The purpose of this document is to provide the requirements, guidance and recommendations regarding the cleaning, inspection and repair of firefighters' personal protective equipment (PPE) and establish criteria for its cleaning, inspection and repair. This document has been developed in response to growing concerns about contaminated PPE and potential health hazards for firefighters. Fire and rescue services, and the manufacturers of PPE, want to provide instructions and guidance to effectively minimize and manage this risk.

It is the responsibility of the firefighter (initially and ongoing) to undertake regular inspections of their PPE, and there shall also be a reliable system / mechanism (including training) to ensure that this can effectively be achieved.

ructi.
repair. This document also provides instruction and guidance to fire and rescue services regarding more advanced cleaning, inspection and repair.

Cleaning, inspection and repair of firefighters' personal protective equipment (PPE)

1 Scope

This document gives requirements, guidance and recommendations for the cleaning, inspection, and repair of PPE for use by firefighters.

This document is intended to be used by those responsible for the cleaning, inspections, and repair of firefighters PPE, however, it will also provide vital guidance to those who are responsible for establishing such a programme including fire and rescue services.

This document does not cover the following at this time:

- a) chemical protective clothing;
- b) garments required for protection against chemical, biological, radiological and nuclear (CBRN) materials.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/TR 19591, Personal protective equipment for firefighters — Standard terms and definitions

ISO/TR 21808, Guidance on the selection, use, care and maintenance of personal protective equipment (PPE) designed to provide protection for firefighters

3 Terms and definitions

For the purposes of this document, the following terms and definitions given in ISO/TR 19591, ISO/TR 21808 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at http://www.iso.org/obp
- IEC Electropedia: available at http://www.electropedia.org/

3.1

advanced cleaning

cleaning by the product manufacturer, the manufacturers approved organisation, or mutually agreed organisation when a PPE item has been, or is potentially exposed to a hazardous or dangerous contaminant

Note 1 to entry: CBRN *contaminated PPE* (3.4) are to be disposed of not cleaned. PPE should be disposed of following local laws and regulations.

Note 2 to entry: Some known chemicals are commercially available for industrial use. PPE that have been exposed to known chemicals may not have to be disposed of. Specialist advice shall be sought on the contamination, however, the PPE shall be treated in the first instance as if the contamination is unknown.

Note 3 to entry: The decision shall be made following a detailed risk assessment.