



DPC: 21/30403740 DC

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Date: 11 August 2021

Origin: International

Latest date for receipt of comments: 25 September 2021

Project No. 2019/03028

Responsible committee: SME/32 Ships and marine technology - Steering committee

Interested committees:

Title: Draft BS ISO 24452 Ships and marine technology — Personal and group survival kit for use in polar water.

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

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Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/Figure/ Table/Note	Type of comment	Commend (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

DRAFT INTERNATIONAL STANDARD

ISO/DIS 24452

ISO/TC 8/SC 1

Secretariat: ANSI

Voting begins on:
2021-08-02

Voting terminates on:
2021-10-25

Ships and marine technology — Personal and group survival kit for use in polar water

ICS: 47.020.99

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Reference number
ISO/DIS 24452:2021(E)

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Published in Switzerland

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Foreword

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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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For an explanation of the voluntary nature of documents, 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 8, *Ships and marine technology*, Subcommittee SC 1, *Maritime Safety*.

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

Introduction

This document contains detailed specifications for various items of survival equipment carried in Personal Survival Kits (PSK) and Group Survival Kits (GSK) in compliance with International Maritime Organization (IMO) International Code for Ships Operating in Polar Waters (Polar Code).

Under the Polar Code, it is necessary for the ship owner/operator to conduct a risk assessment to decide/adjust the number of kits (PSK and/or GSK) required and equipment carried in the kits for a vessel operating in polar water.

This document provides a minimum requirement for PSK and GSK as per new research available in the marine industry. It is intended to supplement International Maritime Organization (IMO) requirements for lifesaving appliances used in Polar waters. The goals of this document are to: increase the chances of survival for all persons in Polar waters, reduce the duration of the search phase to minimize exposure time, and increase the ability of a person to self-rescue.

This document is based on the assumption that thermal equilibrium is maintained only by insulation. Active heating may be considered as an alternative design, provided it is serviced and maintained, to ensure its reliability, at the same interval of the survival craft that contains them (IMO Resolution A.761(18), circ.1328, or MSC.402(96)) and that it is capable of operating continuously for the maximum expected time of rescue (as per section 4.4 of IMO MSC.1/Circ.1614). For cases where alternative designs are used, the thermal resistance formula found within [section 4.3](#) would need to be modified since it is based solely on a passive system. While the section on group survival kit does discuss shelters, this document distinguishes between using a survival craft as a shelter and the use of other temporary shelters. It is recognized that when a survival craft is used as a shelter, it shall not need to comply with the requirements found within [section 6.1.5](#) to [6.1.8](#) of this document. In addition, extra consideration shall be given to ensure it can be properly anchored on snow/ice/land.

Ships and marine technology — Personal and group survival kit for use in polar water

1 Scope

The document specifies design, performance and use of items of survival equipment, as part of a personal survival kit (PSK) and a group survival kit (GSK) that are required by the 1974 International Convention of the Safety of Life at Sea (1974 SOLAS) as amended in particular its chapter XIV (MSC.386(94)) and International Code for Ships Operating in Polar Waters (Polar Code- MSC.385(94) and MEPC.264(68), as amended).

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.

ANSI/NEMA FL1-2009, *Electric torch basic performance document*

ASTM D4772 *Standard Test Method for Surface Water Absorption of Terry Fabrics (Water Flow)*

ASTM F659-10, *Standard Specification for Ski and Snowboard Goggles*

ASTM F3340-18, *Standard Test Method for Thermal Resistance of Camping Mattresses Using a Guarded Hot Plate Apparatus*

EN 511:2006, *Protective gloves against cold*

International Code for Ships Operating in Polar Waters (Polar Code), adopted by IMO Resolution MEPC.264(68) and the Resolution MSC.385(94), as amended.

International Life-Saving Appliance Code (LSA Code), adopted by IMO Resolution MSC.48(66), as amended

IMO MSC 1/Circ. 1614, *Interim guidelines on life-saving appliances and arrangements for ships operating in polar waters*

IMO MSC 81 (70), *Revised recommendation on testing of life-saving appliances*

ISO 12402-8:2020, *Personal flotation devices — Part 8: Accessories — Safety requirements and test methods*

ISO 15831:2004, *Clothing — Physiological effects — Measurement of thermal insulation by means of a thermal manikin*

ISO 18813:2006, *Ships and marine technology — Survival equipment for survival craft and rescue boats*

ISO 20877:2011, *Footwear — Test methods for whole shoe — Thermal insulation*

ISO 23537-1:2016, *Requirements for sleeping bags — Part 1: Thermal and dimensional requirements*

ISO 24444:2019, *Cosmetics — Sun protection test methods — In vivo determination of the sun protection factor (SPF)*

NSF/ANSI 173, *Dietary Supplements*