



Maritime &  
Coastguard  
Agency

MERCHANT SHIPPING NOTICE

# MSN 1870 (M+F) Amendment 3

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## The Merchant Shipping and Fishing Vessels (Personal Protective Equipment) Regulations 1999

**Notice to all Shipowners, Employers, Masters, Seafarers, Safety Officers and Safety Representatives**

*This notice should be read with the Merchant Shipping and Fishing Vessels (Personal Protective Equipment) Regulations 1999 (S.I. 1999/2205) and The Merchant Shipping (Maritime Labour Convention) (Health and Safety) (Amendment) Regulations 2014 (S.I. 2014/1616).*

*This notice replaces MSN 1870 (M+F) Amendment 2.*

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### Summary

This notice provides updated safety standards applicable to Personal Protective Equipment covered by the Merchant Shipping and Fishing Vessels (Personal Protective Equipment) Regulations 1999 (S.I. 1999/2205) (“the PPE Regulations”).

This notice also reflects the Merchant Shipping (Maritime Labour Convention) (Health and Safety) (Amendment) Regulations (S.I. 2014/1616) (“the MLC Health and Safety amendments”) and the Merchant Shipping (Work in Fishing Convention) (Consequential and Minor Amendments) Regulations (S.I. 2018/1109) (the “Work in Fishing Consequential Amendments”).

MSN 1870 (M+F) takes into account the MLC Health and Safety amendments which extended the duties to protect “workers” in health and safety legislation, including the PPE regulations, so that they protect all seafarers, regardless of their employment status, and extended the duties on employers also apply to shipowners. On 31 December 2018, the Work in Fishing Amendments came into force and further extended the protection of health and safety legislation to fishermen regardless of their employment status and applied the duties on employers also to fishing vessel owners. References in this notice to “shipowners and employers” and “seafarers and other workers” therefore now include fishing vessel owners and fishermen.

Annex 1 gives the design standards for personal protective equipment in use on board ships, for specified work activities and situations, in order to comply with regulation 5(2)(a) of the PPE regulations.

Amendment 3 reflects the changes in regulations since the publication of this MGN and updates the PPE standards quoted from the British Standards and EU Harmonised Standards websites<sup>1</sup>, including amended annexes<sup>2</sup>.

The PPE Regulations implemented Directive 89/656/EEC<sup>3</sup> and this notice includes the updated technical standards from Directive 2016/425<sup>4</sup>. All the obligations in the EU legislation mentioned in MSN 1870 (M+F) Amendment 3, which had affect in the UK prior to the 1<sup>st</sup> January 2021 are retained in UK law, with any necessary modifications, after the end of the EU Exit implementation period.

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<sup>1</sup> [EU Harmonised Standards Website](#)

<sup>2</sup> [\(EU\) 2020/668](#) & [\(EU\) 2021/395](#)

<sup>3</sup> [\(EU\) 89/656](#)

<sup>4</sup> [\(EU\) 2016/425 personal protective equipment](#)



## **1. Introduction**

- 1.1 The Merchant Shipping and Fishing Vessels (Personal Protective Equipment) Regulations 1999 (the “PPE regulations”) require shipowners and employers to ensure that personal protective equipment (PPE) is provided for seafarers and other workers who are engaged in, or at risk from a hazardous work activity on board a United Kingdom ship. They also apply to non-UK ships whilst in UK waters.
- 1.2 The PPE regulations are subject to the general rule that use of PPE is always a last resort, to be used where risks cannot be avoided or reduced to a safe level by means of collective protection, or safe systems of work.

## **2. Provision of PPE**

- 2.1 PPE must be provided to the seafarer by the shipowner or employer, free of charge, except when use of the equipment is not exclusive to the workplace. In this case seafarers and other workers may be required to contribute towards the cost.
- 2.2 The equipment issued must be “suitable” which is defined as:
- in relation to any work process described in this Merchant Shipping Notice, of the kind and to the standard specified in this Notice, in relation to that work process;
  - appropriate for the risks to which the seafarer or other worker is exposed and to the task which they are performing without itself leading to any increased risk;
  - correctly fitting the seafarer or other worker, or capable of being adjusted to fit;
  - taking into account ergonomic requirements and the seafarer’s or other worker’s state of health; and
  - compatible with any other equipment the seafarer or other worker has to use at the same time, so that it continues to be effective against the risk.
- 2.3 Where seafarers and other workers provide or choose to supply their own PPE it must meet the appropriate standard and be used when engaged in work of the types outlined in Annex 1. This will not exempt the shipowner and/or employer from their duty to supply PPE free of charge and they will remain responsible for ensuring that seafarers and other workers are correctly equipped with suitable PPE.

## **3. Storage and Maintenance of PPE**

- 3.1 In addition, the shipowner and employer must ensure that the PPE supplied is easily accessible, properly stored and maintained. Where appropriate, instructions must be available to seafarers and other workers who are required to carry out any maintenance. The equipment must be regularly inspected in accordance with the manufacturer’s instructions, and its operation checked. Respiratory protective equipment must always be checked before and after use.

## **4. Use of PPE by seafarers and other workers**

- 4.1 The shipowner and employer must ensure so far as practicable that PPE is used as instructed – e.g. that it is only used for the purpose for which it is designed, and that it is worn correctly.
- 4.2 Seafarers and other workers should receive appropriate training on the risks against which the PPE is designed to protect them, how and when to use it, and how to look after it correctly.
- 4.3 Seafarers and other workers are required to wear and use the PPE which has been issued to them when appropriate, and to comply with any instruction provided on wearing and maintenance.



## 5. Standards, Design and Manufacture

- 5.1 The specifications for PPE are set out in Annex 1. The list covers the PPE most commonly used on ships, but is not exclusive or exhaustive.
- 5.2 The prefixes “EN” and “BS” stand for “European Norm” and “British Standard” respectively. If there is no “EN” standard available, a “BS” standard is quoted. The standards are those to which the clothing and equipment should comply and the date listed is when the latest revision of the relevant standard was published (correct at time of publishing this MSN). When referencing the standard, it should be checked that there have been no subsequent amendments.
- 5.3 Any reference to an EN or BS standard or other standard contained in the Annex, means that standard or an alternative standard which provides equivalent levels of safety, suitability and fitness for purpose when in use.
- 5.4 The standards of equipment given in this Merchant Shipping Notice do not apply to Life Saving Appliances or other equipment which is subject to the Merchant Shipping (Marine Equipment) Regulations 1999 (S.I. 1999/1957).
- 5.5 Publications mentioned in Annex 1 are available from:

### **BS and EN Specifications**

The British Standards Institute

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London W4 4AL

Email: [cservices@bsigroup.com](mailto:cservices@bsigroup.com)

Tel: +44 (0) 345 086 9001

Website: <http://www.bsigroup.com/>

- 5.6 EU Harmonised Standards List

[Summary list of titles and references of harmonised standards](#) under Regulation (EU) 2016/425 on personal protective equipment

## More Information

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**STANDARDS OF PERSONAL PROTECTIVE EQUIPMENT**

All harmonised standards that give a presumption of conformity to EU law at the end of the transition period will become 'designated standards' by the references being published on GOV.UK. Businesses will be able to use designated standards to provide presumption of conformity with GB law.

Harmonised standards remain the relevant standards for placing goods on the Northern Ireland market where EU rules continue to apply.

Note: All protective clothing should conform to BS EN 13688:2013 'Protective Clothing General Requirements'.

	<b>Work Activity</b>	<b>Personal protective equipment and clothing to be provided</b>	<b>Full title of standard</b>
1	Any process or activity involving a reasonably foreseeable risk to the head from falling objects	Head Protection to: EN 397:2012 + A1:2012	Industry safety helmets
2	When working in areas where circumstances involve a reasonably foreseeable risk to the head from bruising or abrasion	Scalp protection to: BS EN 812:2012	Industrial bump caps
3	When working in small, fast craft	PAS 028:2002	Marine safety helmets
4	When entering or working in a space or working with machinery or equipment where the noise level exceeds 85dB(A)	Ear Protection to: BS EN 352-1:2020 <i>Replacing BS EN 352-1:2002</i>	Hearing protectors.General requirements Ear muffs
		<i>BS EN 352-2:2020</i> <i>Replacing BS EN 352-2:2002</i>	Hearing protectors.General requirements– Ear plugs
		<i>BS EN 352-3:2020</i> <i>Replacing BS EN 352-3:2002</i>	Hearing protectors. General requirements. Ear muffs attached to head protection and /or face protection devices
		BS EN 458:2016 <i>Replacing BS EN 458: 2004</i>	Hearing protectors Recommendations for selection, use care and maintenance. Guidance document
		Hearing protection should be provided with consideration to appropriate guidance such as Section 7 of the MCA Code Of Practice for Controlling Risks Due to Noise on Ships published by TSO and MIN588 Amendment 1.	
5	Welding and gas cutting	Eye and face protection to: BS EN 175:1997	Personal Protection Equipment for eye and face protection during welding and allied processes
		BS EN 166:2002 <i>Replaces BS EN 166:1996</i> <i>Correction EN 166:2001</i>	Personal eye protection – Specifications
		BS EN 379:2003+A1:2009  BS EN 169:2002	Personal eye protection Automatic welding filters. Personal eye protection. Filters for welding and related techniques. Transmittance requirements and recommended use
		Body protection to BS EN ISO 11611:2015 <i>Replacing BS EN 470-1:1995 &amp; BS EN ISO 11611:2007</i>  Additional protection may be required in some situations (e.g. for particularly intense welding/cutting operations).	Protective clothing for use in welding and allied processes.



6	Any work activity in which there is reasonably foreseeable risk of injury to the eye from particles, fragments or injurious substances	Eye protection to: BS EN 166:2002 <i>Replaces BS EN 166:1996</i> <i>Correction EN 166:2001</i>	Personal eye protection. Specifications
7	Any work activity involving working in an atmosphere which is likely to be hazardous	Note: The following items should be selected and maintained according to: BS EN 529:2005 <i>Replacing BS 4275:1997</i>	Respiratory protective devices. Recommendations for selection, use, care and maintenance. Guidance document
(a)	Protection against nuisance dust, mist, particles and dust of low toxicity.	Disposable respirators conforming to: BS EN 149:2001+A1:2009	Respiratory protective devices. Filtering half masks to protect against particles. Requirements, testing, marking
		General purpose respirators conforming as appropriate to one of the following:	
		BS EN 136:1998	Respiratory protective devices: Full face masks. Requirements, testing, marking
		BS EN 140:1999	Respiratory protective devices: half masks or quarter masks. Requirements, testing, marking
		BS EN 12083:1998	Respiratory protective devices. Filters with breathing hoses (non-mask mounted filters) Particle filters, gas filters and combined filters. Requirements, testing, marking
		BS EN 143:2021 <i>Replacing BS EN 143:2000</i>	Respiratory protective devices. Particle filters. Requirements, testing, marking
		<i>BS EN 14387:2021</i> <i>Replacing BS EN 14387:2004+A1:2008</i>	Respiratory protective devices, Gas filter(s) and combined filter(s). Requirements, testing, marking
		BS EN 1827:1999+A1:2009	Respiratory protective devices. Half masks without inhalation valves and with separable filters to protect against gases or gases and particles or particles only. Requirements, testing, marking
(b)	Protection against toxic dusts and gases of low toxicity	Respirators conforming as appropriate to one of the following:	
		BS EN 136:1998	Respiratory protective devices. Full face masks. Requirements, testing, marking
		BS EN 140:1999	Respiratory protective devices. Half masks and quarter masks. Requirements, testing, marking
		BS EN 143:2021 <i>Replacing BS EN 143:2000</i>	Respiratory protective devices. Particle filters. Requirements, testing, marking
		<i>BS EN 14387:2021</i> <i>Replacing BS EN 14387:2004+A1:2008</i>	Respiratory devices. Gas filter(s) and combined filter(s). Requirements, testing, marking
		BS EN 405:2001+A1:2009	Respiratory protective devices. Valved filtering half masks to protect against gases or gases and particles Requirements, testing, marking
		Note: Particulate filters may be incorporated for some applications.	
(c)	Protection against toxic dust	Powered dust respirators, powered dust hoods conforming as appropriate to one of the following:	
		BS EN 136:1998	Respiratory protective devices. Full face masks. Requirements, testing, marking
		<i>BS EN 143:2021</i> <i>Replacing BS EN 143: 2000</i>	Respiratory protection devices. Particles filters. Requirements, testing, marking
		BS EN 12942: 1998+A2: 2008	Respiratory protective devices. Power assisted filtering devices incorporating full face masks, half masks or quarter masks.



			Requirements, testing, marking
		BS EN 12941: 1998+A2:2008	Respiratory protective devices. Powered particle filtering devices incorporating a helmet or hood. Requirements, testing, marking
		Protection against highly toxic atmospheres; or where there is oxygen deficiency; or where there is an alternative to the items above where suitable	
8	(d) Protection against highly toxic atmospheres; or where there is oxygen deficiency; or where there is an alternative to the items above where suitable	Breathing apparatus conforming to:	
		BS EN 1146: 2005	Respiratory protective devices. Self-contained open circuit compressed air breathing apparatus incorporating a hood for escape. Requirements testing, marking
		BS EN 137:2006	Respiratory protective devices. Self-contained open-circuit compressed air breathing apparatus with full mask. Requirements, testing, marking
		BS EN 138: 1994 EN 142:2002	Respiratory protective devices. Specification for fresh air hose breathing apparatus for use with full face mask, half mask or mouth piece assembly.
		BS EN 14593-1:2018 <i>Replacing: BS EN 14593-1:2005</i>	Respiratory protective devices. Compressed air line breathing devices with demand valve. Devices with a full face mask. Requirements, testing marking
		BS EN 14593-2:2005 <i>Replacing: EN 139:1995</i>	Respiratory protective devices. Compressed air line breathing apparatus with demand valve. Apparatus with a half mask Requirements, testing, marking
		BS EN 14594:2018 <i>Replacing: BS EN 14594:2005</i>	Respiratory protective devices. Continuous flow compressed air line breathing devices. Requirements, testing, marking
		BS EN 269: 1995	Respiratory protective devices. Specification for powered fresh air hose breathing apparatus incorporating a hood
		BS EN 402: 2003	Respiratory protective devices. Lung governed demand self- contained open-circuit compressed air breathing apparatus with full face mask or mouthpiece for escape. Requirements, testing, marking
8	Any process or activity involving working in an area where there is a foreseeable risk of injury from substances which are corrosive or likely to be absorbed through the skin	Protective overalls, gloves or head gear, whichever is appropriate:	
		BS EN ISO 13688:2013 <i>Replacing EN 340:2003</i>	Protective clothing general requirements
		BS EN 14605:2005+A1:2009 <i>Replacing: EN 465:1995; EN 466-1:1995 &amp; EN 467:1995</i>	Protective clothing against liquid chemicals. Performance requirements for chemical protective clothing with liquid tight (Type 3) or spray-tight (Type 4) connections including items providing protection to parts of the body only (Types PB [3] and PB [4])
		BS EN 943-1:2015+A1:2019	Protective clothing against dangerous solid, liquid and gaseous chemicals, including liquid and solid aerosols - Performance requirements for Type 1 (gas-tight) chemical protective suits
		BS EN 943-2:2019	Protective clothing against dangerous solid, liquid and gaseous chemicals, including liquid and solid aerosols -



			Performance requirements for Type 1 (gas-tight) chemical protective suits for emergency teams (ET)
9	Any process or activity involving a reasonably foreseeable risk of injury to the hands unless the use of hand protection would increase the risk	Hand protection conforming as appropriate to:	
		BS EN 374-1: 2016+ A1 :2018 <i>Replacing: EN 374-1:2003</i>	Protective gloves against dangerous chemicals and micro-organisms. Terminology and performance requirements for chemical risks
		BS EN 374-2:2019 <i>Replacing: BS EN 374-2:2014</i>	Protective gloves against dangerous chemicals and micro-organisms. Determination of resistance to penetration
		BS EN 16523-1:2015+ A1:2018 <i>Replacing: BS EN 374-3:2003</i>	Determination of material resistance to permeation by chemicals. Permeation by potentially hazardous liquid chemicals under conditions of continuous contact
		BS EN ISO 374-4:2019 <i>Replacing: BS EN 374-4:2013</i>	Protective gloves against dangerous chemicals and micro-organisms. Determination of resistance to degradation by chemicals.
		BS EN ISO 374-5:2016	Protective gloves against dangerous chemicals and micro-organisms. Terminology and performance requirements for micro-organisms risks.
		BS EN 388:2016+A1:2018 EN 388:2016+A1:2018 <i>Replacing: BS EN 388: 2003</i>	Protective gloves against mechanical risks
		BS EN 407:2020 <i>Replacing: BS EN 407:2004</i>	Protective gloves and other hand protective equipments against thermal risks (heat and/or fire)
		BS EN 510:2019	Specification for protective clothing for use where there is a risk of entanglement with moving parts
		BS EN ISO 21420:2020 <i>Replacing: BS EN 420:2003+A1:2009</i>	Protective gloves. General requirements and test methods
		BS EN 511:2006 <i>Replacing: BS EN 511:1994</i>	Protective gloves against cold
10	Any process or activity involving particular risk of injury to the feet	Foot protection conforming to:	
		BS EN ISO 20345:2011 <i>Replacing BS EN ISO 20345:2004</i>	Personal protective equipment. Safety footwear
		BS EN ISO 17249:2013	Safety footwear with resistance to chain saw cutting
		BS EN ISO 15090:2012	Footwear for firefighters
		BS EN ISO 20346:2014	Personal protective equipment. Protective footwear
		BS EN ISO 20347:2012	Personal protective equipment. Occupational footwear
11	Work at height or in any other area where there is a reasonably foreseeable risk of falling	Safety harness and associated lanyard conforming to the following:	
		BS EN 353-1:2014 +A1:2017 <i>Replacing EN 353-1:2014</i>	Personal fall protection equipment. Guided type fall arresters including an anchor line. Guided fall type arresters including a rigid anchor line
		BS EN 353-2:2002	Personal protective equipment against falls from height. Guided type fall arresters including a flexible anchor line
		BS EN 354:2010	Personal fall protection equipment. Lanyards
		BS EN 355:2002	Personal protective equipment against falls from a height. Energy absorbers
		BS EN 358:2018	Personal protective equipment for work positioning and prevention of falls from a



			height – Belts and lanyards for work positioning or restraint
		BS EN 360: 2002*	Personal protective equipment against falls from height. Retractable type fall arresters
		BS EN 361:2002*	Personal protective equipment against falls from height. Full body harnesses
		BS EN 362:2004*	Personal protective equipment against falls from height. Connectors
		*See BS EN 365:2004 for marking requirements.	Personal protective equipment against falls from a height. General requirements for instructions for use, maintenance, periodic examination, repair, marking and packaging
		BS 8437:2005+A1:2012	Code of Practice for selection, use and maintenance of personal fall protection systems and equipment for use in the workplace
		Or where the use of portable ladders is necessary, such ladders to be used in conjunction with the guidance contained in Chapter 17 in the Code of Safe Working Practices for Merchant Seafarers.	
<b>12</b>	Any work carried out from an overside position or in an exposed position where there is a reasonably foreseeable risk of falling or being washed overboard or any work carried out in or from a ship's boat	Either a MCA approved lifejacket or a personal flotation device conforming as appropriate to one of the following, taking into account the area of operation.	
		BS EN ISO 12402-8:2020 <i>Replacing BS EN ISO 12402-8:2006+A1:2011</i>	Personal flotation devices. Accessories. Safety requirements and test methods
		BS EN ISO 12402-3:2020 <i>Replacing BS EN ISO 12402-3:2006+A1:2010</i>	Personal flotation devices. Lifejackets, performance level 150. Safety requirements
		BS EN ISO 12402-2:2020 <i>Replacing: BS EN ISO 12402-2:2006+A1:2010</i>	Personal flotation devices. Lifejackets, performance level 275. Safety requirements
		<i>Partially inherent lifejackets must have at least 89 N of inherent buoyancy; and with the inflatable sections relying on automatic inflation</i>	
		<i>Specific to the fishing industry only, guidance has been provided within MGN 588 (F) 7.3 Other types of PPE, determined on the basis of a risk assessment.</i>	
<b>13</b>	Any work activity where it is necessary to carry out repair or maintenance work on or near exposed live electrical equipment, and there is a reasonably foreseeable risk of injury	Rubber gloves conforming to: BS EN 60903:2003	Live working. Gloves of insulating material
		Protective sleeves conforming to: BS EN 60984:1993	Specification for sleeves of insulating material for live working
		An insulating mat (except where specially insulated flooring is installed) conforming to: BS EN 61111:2009 <i>Withdrawn BS 921:1976</i>	Live working. Electrical insulating matting
		BS EN 50321-1:2018	Live working. Footwear for electrical protection - Insulating footwear and overboots





		BS EN 61482-2:2020	Live working. Protective clothing against the thermal hazards of an electric arc - Requirements
		Rubber soled footwear (no standard necessary)	
		Note: gloves, sleeves and mats should protect against the appropriate voltage.	
14	Any work activity involving a reasonably foreseeable risk of injury from vehicle movement e.g. during ro-ro operations	BS EN ISO 20471:2013+A1:2016 <i>Replacing BS EN ISO 20471:2013</i>	High visibility clothing. Test methods and requirements
15	Any work process involving exposure to heat	BS EN ISO 11612:2015 <i>Replacing BS EN 531:1995</i>	Protective clothing. Clothing to protect against heat and flame. Minimum performance requirements
16	Any work process involving exposure to cool or cold conditions	BS EN 14058:2017 <i>Replacing BS EN 14058: 2004</i>	Protective clothing. Garments for protection against cool environments
17	Work in engine rooms, machinery spaces or anywhere there is a foreseeable risk of fire or explosion.	BS EN ISO 11612:2015	Protective clothing. Clothing to protect against heat and flame. Minimum performance requirements  Overalls made of fabric of low flammability (e.g. natural fibres, high cotton content) and with Flame retardant finishes.  Cotton or cotton polyester clothing with flame-retardant finishes are available to protect against sparks and flame

