



Maritime &  
Coastguard  
Agency

## MERCHANT SHIPPING NOTICE

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# MSN 1870 (M+F) Amendment 5 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) and replaces MSN 1870 (M+F) Amendment 4.

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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 Provisions) 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 the extended 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 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 5 updates the PPE standards quoted from the British Standards and [EU Harmonised Standards websites](#), including [amended annexes](#), with reference to the UK Conformity Assessment (UKCA) marking (see 5.5).

## **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 principle 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 must 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 must 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 Transition from CE Marking to UKCA Marking in Great Britain occurred from the 31<sup>st</sup> December 2020 and a new UK CA (UK Conformity Assessed) marking system was introduced, with the full transition to this UK CA marking system from 1<sup>st</sup> January 2023. The British Standards Institution continues as a full member to (CEN) as relevant to this MSN and as noted with reference to the official numbers in Annex 1.

5.6 Publications mentioned in Annex 1 are available from:

### **BS and EN Specifications**

The British Standards Institute

389 Chiswick High Road

London W4 4AL

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

Tel: +44 (0) 345 086 9001

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

5.7 EU Harmonised Standards List

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

## 6. Other information

6.1 Health and safety executive ([HSE](#)) [PPE safety e-bulletin 6<sup>th</sup> April 2022](#)

## More information

Seafarer Safety and Health Branch  
Maritime and Coastguard Agency  
Bay 2/17  
Spring Place  
105 Commercial Road  
Southampton  
SO15 1EG

Telephone: +44 (0)203 81 72250

Email: [seafarersafety@mcga.gov.uk](mailto:seafarersafety@mcga.gov.uk)

Website: [www.gov.uk/mca](http://www.gov.uk/mca)

Please note that all addresses and telephone numbers are correct at time of publishing.

## ANNEX 1

### **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.

Where the introduction of the new UKCA marking begins to be incorporated into the BSI official references, they will be reflected here.

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

Note: All protective clothing must conform to **BS EN 13688:2013+A11:2021** 'Protective Clothing General Requirements'.

The following sections list work activities with the standard titles and the standard reference, of the PPE or clothing to be provided:

#### **1. Any process or activity involving a reasonably foreseeable risk to the head from falling objects**

- Industry safety helmets - head protection to: **EN 397:2012+A1:2012**

#### **2. When working in areas where circumstances involve a reasonably foreseeable risk to the head from bruising or abrasion**

- Industrial bump caps - scalp protection to: **BS EN 812:2012**

#### **3. When working in small, fast craft**

- Marine safety helmets - **PAS 028:2002**

#### **4. When entering or working in a space or working with machinery or equipment where the noise level exceeds 85dB(A)**

- Hearing protectors. General requirements earmuffs - ear protection to: **BS EN 352-1:2020**
- Hearing protectors. General requirements— ear plugs - **BS EN 352-2:2020**
- Hearing protectors. General requirements. Ear muffs attached to head protection and /or face protection devices - **EN 352-3:2020**
- Hearing protectors recommendations for selection, use care and maintenance. Guidance document - **BS EN 458:2016**

Hearing protection must 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 2](#).

#### **5. Welding and gas cutting**

- Personal protection equipment for eye and face protection during welding and allied processes- eye and face protection to: **BS EN 175:1997**
- Personal eye protection – Specifications - **BS EN 166:2002**
- Personal eye protection automatic welding filters - **BS EN 379:2003+A1:2009**
- Eye and face protection for occupational use – general requirements – **BS EN ISO 16321-1:2022**

- Protective clothing for use in welding and allied processes - body protection to: **BS EN ISO 11611:2015**

Additional protection may be required in some situations (e.g. for particularly intense welding/cutting operations).

**6. Any work activity in which there is reasonably foreseeable risk of injury to the eye from particles, fragments or injurious substances**

- Personal eye protection. Specifications - eye protection to: **BS EN 166:2002**

**7. Any work activity involving working in an atmosphere which is likely to be hazardous**

Respiratory protective devices. Recommendations for selection, use, care and maintenance. Guidance document - the following items (a - d) shall be selected and maintained according to: **BS EN 529:2005**

**(a) Protection against nuisance dust, mist, particles and dust of low toxicity.**

- Respiratory protective devices. Filtering half masks to protect against particles. Requirements, testing, marking - Disposable respirators conforming to **BS EN 149:2001+A1:2009**

General purpose respirators conforming as appropriate to one of the following:

- Respiratory protective devices: Full face masks. Requirements, testing, marking - **BS EN 136:1998**
- Respiratory protective devices: half masks or quarter masks. Requirements, testing, marking - **BS EN 140:1999**
- Respiratory protective devices. Filters with breathing hoses (non-mask mounted filters) Particle filters, gas filters and combined filters. Requirements, testing, marking - **BS EN 12083:1998**
- Respiratory protective devices. Particle filters. Requirements, testing, marking - **BS EN 143:2021**
- Respiratory protective devices, Gas filter(s) and combined filter(s). Requirements, testing, marking - **BS EN 14387:2021**
- 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 - **BS EN 1827:1999+A1:2009**

**(b) Protection against toxic dusts and gases of low toxicity**

Respirators conforming as appropriate to one of the following:

- Respiratory protective devices. Full face masks. Requirements, testing, marking - **BS EN 136:1998**
- Respiratory protective devices. Half masks and quarter masks. Requirements, testing, marking - **BS EN 140:1999**
- Respiratory protective devices. Particle filters. Requirements, testing, marking - **BS EN 143:2021**
- Respiratory devices. Gas filter(s) and combined filter(s). Requirements, testing, marking - **BS EN 14387:2021**
- Respiratory protective devices. Valved filtering half masks to protect against gases or gases and particles Requirements, testing, marking - **BS EN 405:2001+A1:2009**

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:

- Respiratory protective devices. Full face masks. Requirements, testing, marking - **BS EN 136:1998**
- Respiratory protection devices. Particles filters. Requirements, testing, marking - **BS EN 143:2021**
- Respiratory protective devices. Power assisted filtering devices incorporating full face masks, half masks or quarter masks. Requirements, testing, marking - **BS EN 12942:1998+A2:2008**
- Respiratory protective devices. Powered particle filtering devices incorporating a helmet or hood. Requirements, testing, marking - **BS EN 12941:1998+A2:2008**

Protection against highly toxic atmospheres; or where there is oxygen deficiency; or where there is an alternative to the items above where suitable.

### **(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:

- Respiratory protective devices. Self-contained open circuit compressed air breathing apparatus incorporating a hood for escape. Requirements testing, marking - **BS EN 1146:2005**
- Respiratory protective devices. Self- contained open-circuit compressed air breathing apparatus with full mask. Requirements, testing, marking - **BS EN 137:2006**
- Respiratory protective devices. Specification for fresh air hose breathing apparatus for use with full face mask, half mask or mouthpiece assembly - **BS EN 138:1994** and **BS EN 142:2002**
- Respiratory protective devices. Compressed air line breathing devices with demand valve. Devices with a full face mask. Requirements, testing marking - **BS EN 14593-1:2018**
- Respiratory protective devices. Compressed air line breathing apparatus with demand valve. Apparatus with a half mask. Requirements, testing, marking - **BS EN 14593-2:2005**
- Respiratory protective devices. Continuous flow compressed air line breathing devices. Requirements, testing, marking - **BS EN 14594:2018**
- Respiratory protective devices. Specification for powered fresh air hose breathing apparatus incorporating a hood - **BS EN 269: 1995**
- 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 - **BS EN 402: 2003**

### **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:

- Protective clothing general requirements - **BS EN ISO 13688:2013+A11:2021**
- 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 14605:2005+A1:2009**

- 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 943-1:2015+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 for emergency teams (ET) - **BS EN 943-2:2019**

**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:

- Protective gloves against dangerous chemicals and micro-organisms. Terminology and performance requirements for chemical risks - **BS EN 374-1:2016+A1:2018**
- Protective gloves against dangerous chemicals and micro-organisms. Determination of resistance to penetration - **BS EN 374-2:2019**
- Determination of material resistance to permeation by chemicals. Permeation by potentially hazardous liquid chemicals under conditions of continuous contact - **BS EN 16523-1:2015+A1:2018**
- Determination of material resistance to permeation by chemicals. Permeation by potentially hazardous gaseous chemicals under conditions of continuous contact - **BS EN 16523-2:2015+A1:2018**
- Protective gloves against dangerous chemicals and micro-organisms. Determination of resistance to degradation by chemicals - **BS EN ISO 374-4:2019**
- Protective gloves against dangerous chemicals and micro-organisms. Terminology and performance requirements for micro-organisms risks - **BS EN ISO 374-5:2016**
- Protective gloves against mechanical risks - **BS EN 388:2016+A1:2018**
- Protective gloves and other hand protective equipment against thermal risks (heat and/or fire) - **BS EN 407:2020**
- Specification for protective clothing for use where there is a risk of entanglement with moving parts - **BS EN 510:2019**
- Protective gloves. General requirements and test methods - **BS EN ISO 21420:2020**
- Protective gloves against cold - **BS EN 511:2006**

**10. Any process or activity involving particular risk of injury to the feet**

Foot protection conforming to:

- Personal protective equipment. Safety footwear - **BS EN ISO 20345:2022**
- Safety footwear with resistance to chain saw cutting - **BS EN ISO 17249:2013**
- Footwear for firefighters - **BS EN 15090:2012**
- Personal protective equipment. Protective footwear - **BS EN ISO 20346:2022**
- Personal protective equipment. Occupational footwear - **BS EN ISO 20347:2022**

**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:

- Personal fall protection equipment. Guided type fall arresters including an anchor line. Guided fall type arresters including a rigid anchor line - **BS EN 353-1:2014+A1:2017**



- Personal protective equipment against falls from height. Guided type fall arresters including a flexible anchor line - **BS EN 353-2:2002**
- Personal fall protection equipment. Lanyards - **BS EN 354:2010**
- Personal protective equipment against falls from a height. Energy absorbers - **BS EN 355:2002**
- Personal protective equipment for work positioning and prevention of falls from a height – Belts and lanyards for work positioning or restraint - **BS EN 358:2018**
- Personal protective equipment against falls from height. Retractable type fall arresters - **BS EN 360: 2002\***
- Personal protective equipment against falls from height. Full body harnesses - **BS EN 361:2002\***
- Personal protective equipment against falls from height. Connectors - **BS EN 362:2004\***
- Personal protective equipment against falls from a height. General requirements for instructions for use, maintenance, periodic examination, repair, marking and packaging - **\*See BS EN 365:2004** for marking requirements.
- Code of Practice for selection, use and maintenance of personal fall protection systems and equipment for use in the workplace - **BS 8437:2005+A1:2012**

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.

**12. 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.

- Personal flotation devices. Accessories. Safety requirements and test methods - **BS EN ISO 12402-8:2020**
- Personal flotation devices. Special application lifejackets and buoyancy aids. Safety requirements and additional test methods - **BS EN ISO 12402-6:2020**
- Personal flotation devices. Lifejackets, performance level 150. Safety requirements - **BS EN ISO 12402-3:2020**
- Personal flotation devices. Lifejackets, performance level 275. Safety requirements - **BS EN ISO 12402-2:2020**

Partially inherent lifejackets must have at least 89 N of inherent buoyancy and with the inflatable sections relying on automatic inflation.

Specific to the fishing industry only: guidance has been provided within [MGN 588 \(F\) Amendment 1 Compulsory Provision and Wearing of PFDs on fishing vessels](#)

**13. 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**

- Live working. Gloves of insulating material - Rubber gloves conforming to: **BS EN 60903:2003**
- Specification for sleeves of insulating material for live working - Protective sleeves conforming to: **BS EN 60984:1993**

- Live working. Electrical insulating matting - An insulating mat (except where specially insulated flooring is installed) conforming to: **BS EN 61111:2009**
- Live working. Footwear for electrical protection - Insulating footwear and overboots - **BS EN 50321-1:2018**
- Live working. Protective clothing against the thermal hazards of an electric arc – Requirements - **BS EN 61482-2:2020**

Rubber soled footwear (no standard necessary)

Note: gloves, sleeves and mats must 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**

- High visibility clothing. Test methods and requirements - **BS EN ISO 20471:2013+A1:2016**

**15. Any work process involving exposure to heat**

Protective clothing. Clothing to protect against heat and flame. Minimum performance requirements - **BS EN ISO 11612:2015**

**16. Any work process involving exposure to cool or cold conditions**

Protective clothing. Garments for protection against cool environments - **BS EN 14058:2017**

**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

**Replaced, withdrawn or corrected standards**

Section	Old Standard	Current Standard
1	no update	no update
2	no update	no update
3	no update	no update
4	BS EN 352-1:2002	BS EN 352-1:2020
	BS EN 352-2:2002	BS EN 352-2:2020
	BS EN 352-3:2002	BS EN 352-3:2020
	BS EN 458: 2004	BS EN 458:2016
5	BS EN 166:1996	BS EN 166:2002
	BS EN 169:2002	BS EN ISO 16321-1:2022
	BS EN 470-1:1995 & BS EN ISO 11611:2007	BS EN ISO 11611:2015
6	BS EN 166:1996	BS EN 166:2002
7	BS 4275:1997	BS EN 529:2005
7(a)	BS EN 143:2000	BS EN 143:2021

	BS EN 14387:2004+A1:2008	BS EN 14387:2021
7(b)	BS EN 143:2000	BS EN 143:2021
	BS EN 14387:2004+A1:2008	BS EN 14387:2021
7(c)	BS EN 143:2000	BS EN 143:2021
7(d)	BS EN 14593-1:2005	BS EN 14593-1:2018
	EN 139:1995	BS EN 14593-2:2005
	BS EN 14594:2005	BS EN 14594:2018
8	EN 340:2003	BS EN ISO 13688:2013+A11:2021
	EN 465:1995, EN 466-1:1995 & EN 467:1995	BS EN 14605:2005+A1:2009
9	EN 374-1:2003	BS EN 374-1:2016+A1:2018
	BS EN 374-2:2014	BS EN 374-2:2019
	BS EN 374-3:2003	BS EN 16523-1:2015+A1:2018
	none previous	BS EN 16523-2:2015+A1:2018
	BS EN 374-4:2013	BS EN ISO 374-4:2019
	BS EN 388:2003	BS EN 388:2016+A1:2018
	BS EN 407:2004	BS EN 407:2020
	BS EN 420:2003+A1:2009	BS EN ISO 21420:2020
	BS EN 511:1994	BS EN 511:2006
10	BS EN ISO 20345:2011 & BS EN ISO 20345:2004	BS EN ISO 20345:2022
	BS EN ISO 20346:2014	BS EN ISO 20346:2022
	BS EN ISO 20347:2012	BS EN ISO 20347:2022
11	EN 353-1:2014	BS EN 353-1:2014+A1:2017
12	BS EN ISO 12402-8:2006+A1:2011	BS EN ISO 12402-8:2020
	none previous	BS EN ISO 12402-6:2020
	BS EN ISO 12402-3:2006+A1:2010	BS EN ISO 12402-3:2020
	BS EN ISO 12402-2:2006+A1:2010	BS EN ISO 12402-2:2020
13	BS 921:1976	BS EN 61111:2009
14	BS EN ISO 20471:2013	BS EN ISO 20471:2013+A1:2016
15	BS EN 531:1995	BS EN ISO 11612:2015
16	BS EN 14058:2004	BS EN 14058:2017
17	No update	No update