This text is meant purely as a documentation tool and has no legal effect. The Union's institutions do not assume any liability for its contents. The authentic versions of the relevant acts, including their preambles, are those published in the Official Journal of the European Union and available in EUR-Lex. Those official texts are directly accessible through the links embedded in this document

## ►<u>B</u>

## **COUNCIL DIRECTIVE**

## of 30 November 1989

on the minimum health and safety requirements for the use by workers of personal protective equipment at the workplace (third individual directive within the meaning of Article 16 (1) of Directive 89/391/EEC)

(89/656/EEC)

(OJ L 393, 30.12.1989, p. 18)

Amended by:

|             |   | (     | Official Journal |            |  |  |
|-------------|---|-------|------------------|------------|--|--|
|             |   | No    | page             | date       |  |  |
| ► <u>M1</u> | Directive 2007/30/EC of the European Parliament and of the Council of 20 June 2007      | L 165 | 21               | 27.6.2007  |  |  |
| ► <u>M2</u> | Regulation (EU) 2019/1243 of the European Parliament and of the Council of 20 June 2019 | L 198 | 241              | 25.7.2019  |  |  |
| ► <u>M3</u> | Commission Directive 2019/1832 of 24 October 2019                                       | L 279 | 35               | 31.10.2019 |  |  |

## Corrected by:

▶<u>C1</u> Corrigendum, OJ L 59, 6.3.1991, p. 24 (89/656/EEC)

#### **COUNCIL DIRECTIVE**

#### of 30 November 1989

on the minimum health and safety requirements for the use by workers of personal protective equipment at the workplace (third individual directive within the meaning of Article 16 (1) of Directive 89/391/EEC)

#### (89/656/EEC)

#### SECTION I

## **GENERAL PROVISIONS**

## Article 1

## Subject

1. This Directive, which is the third individual directive within the meaning of Article 16 (1) of Directive 89/391/EEC, lays down minimum requirements for personal protective equipment used by workers at work.

2. The provisions of Directive 89/391/EEC are fully applicable to the whole scope referred to in paragraph 1, without prejudice to more  $\triangleright$  C1 stringent  $\blacktriangleleft$  and/or specific provisions contained in this Directive.

#### Article 2

#### Definition

1. For the purposes of this Directive, personal protective equipment shall mean all equipment designed to be worn or held by the worker to protect him against one or more hazards likely to endanger his safety and health at work, and any addition or accessory designed to meet this objective.

- 2. The definition in paragraph 1 excludes:
- (a) ordinary working clothes and uniforms not specifically designed to protect the safety and health of the worker;
- (b) equipment used by emergency and rescue services;
- (c) personal protective equipment worn or used by the military, the police and other public order agencies;
- (d) personal protective equipment for means of road transport;
- (e) sports equipment;
- (f) self-defence or deterrent equipment;
- (g) portable devices for detecting and signalling risks and nuisances.

## Article 3

## General rule

Personal protective equipment shall be used when the risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization.

## SECTION II

## **EMPLOYERS' OBLIGATIONS**

#### Article 4

## **General provisions**

1. Personal protective equipment must comply with the relevant Community provisions on design and manufacture with respect to safety and health.

- All personal protective equipment must:
- (a) be appropriate for the risks involved, without itself leading to any increased risk;
- (b) correspond to existing conditions at the workplace;
- (c) take account of ergonomic requirements and the worker's state of health;
- (d) fit the wearer correctly after any necessary adjustment.

2. Where the presence of more than one risk makes it necessary for a worker to wear simultaneously more than one item of personal protective equipment, such equipment must be compatible and continue to be effective against the risk or risks in question.

3. The conditions of use of personal protective equipment, in particular the period for which it is worn, shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the personal protective equipment.

4. Personal protective equipment is, in principle, intended for personal use.

If the circumstances require personal protective equipment to be worn by more than one person, appropriate measures shall be taken to ensure that such use does not create any health or hygiene problem for the different users.

5. Adequate information on each item of personal protective equipment, required under paragraphs 1 and 2, shall be provided and made available within the undertaking and/or establishment.

6. Personal protective equipment shall be provided free of charge by the employer, who shall ensure its good working order and satisfactory hygienic condition by means of the necessary maintenance, repair and replacements.

However, Member States may provide, in accordance with their national practice, that the worker be asked to contribute towards the cost of certain personal protective equipment in circumstances where use of the equipment is not exclusive to the workplace.

7. The employer shall first inform the worker of the risks against which the wearing of the personal protective equipment protects him.

8. The employer shall arrange for training and shall, if appropriate, organize demonstrations in the wearing of personal protective equipment.

9. Personal protective equipment may be used only for the purposes specified, except in specific and exceptional circumstances.

It must be used in accordance with instructions.

Such instructions must be understandable to the workers.

## Article 5

#### Assessment of personal protective equipment

1. Before choosing personal protective equipment, the employer is required to assess whether the personal protective equipment he intends to use satisfies the requirements of Article 4(1) and (2).

This assessment shall involve:

- (a) an analysis and assessment of risks which cannot be avoided by other means;
- (b) the definition of the characteristics which personal protective equipment must have in order to be effective against the risks referred to in (a), taking into account any risks which this equipment itself may create;
- (c) comparison of the characteristics of the personal protective equipment available with the characteristics referred to in (b).

2. The assessment provided for in paragraph 1 shall be reviewed if any changes are made to any of its elements.

#### Article 6 (\*)

## Rules for use

1. Without prejudice to Articles 3, 4 and 5, Member States shall ensure that general rules are established for the use of personal protective equipment and/or rules covering cases and situations where the employer must provide the personal protective equipment, taking account of Community legislation on the free movement of such equipment.

<sup>(\*)</sup> See the Commission communication (OJ No C 328, 30.12.1989, p. 3).

These rules shall indicate in particular the circumstances or the risk situations in which, without prejudice to the priority to be given to collective means of protection, the use of personal protective equipment is necessary.

Annexes I, II and III, which constitute a guide, contain useful information for establishing such rules.

2. When Member States adapt the rules referred to in paragraph 1, they shall take account of any significant changes to the risk, collective means of protection and personal protective equipment brought about by technological developments.

3. Member States shall consult the employers' and workers' organization on the rules referred to in paragraphs 1 and 2.

## Article 7

## Information for workers

Without prejudice to Article 10 of Directive 89/391/EEC, workers and/or their representatives shall be informed of all measures to be taken with regard to the health and safety of workers when personal protective equipment is used by workers at work.

#### Article 8

#### Consultation of workers and workers' participation

Consultation and participation of workers and/or of their representatives shall take place in accordance with Article 11 of Directive 89/391/EEC on the matters covered by this Directive, including the Annexes thereto.

#### SECTION III

## MISCELLANEOUS PROVISIONS

## ▼<u>M2</u>

#### Article 9

#### Amendments to the Annexes

The Commission is empowered to adopt delegated acts in accordance with Article 9a to make strictly technical amendments to the Annexes, in order to take account of technical harmonisation and standardisation relating to personal protective equipment, technical progress, changes in international regulations or specifications and knowledge in the field of personal protective equipment.

Where, in duly justified and exceptional cases involving imminent, direct and serious risks to workers' and other persons' physical health and safety, imperative grounds of urgency require action in a very short timeframe, the procedure provided for in Article 9b shall apply to delegated acts adopted pursuant to this Article.

## Article 9a

## Exercise of the delegation

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.

2. The power to adopt delegated acts referred to in Article 9 shall be conferred on the Commission for a period of five years from 26 July 2019. The Commission shall draw up a report in respect of the delegation of power not later than nine months before the end of the five-year period. The delegation of power shall be tacitly extended for periods of an identical duration, unless the European Parliament or the Council opposes such extension not later than three months before the end of each period.

3. The delegation of power referred to in Article 9 may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the *Official Journal of the European Union* or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

4. Before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making (<sup>1</sup>).

5. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.

6. A delegated act adopted pursuant to Article 9 shall enter into force only if no objection has been expressed either by the European Parliament or the Council within a period of two months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.

## Article 9b

#### Urgency procedure

1. Delegated acts adopted under this Article shall enter into force without delay and shall apply as long as no objection is expressed in accordance with paragraph 2. The notification of a delegated act to the European Parliament and the Council shall state the reasons for the use of the urgency procedure.

2. Either the European Parliament or the Council may object to a delegated act in accordance with the procedure referred to in Article 9a(6). In such a case, the Commission shall repeal the act immediately following the notification of the decision to object by the European Parliament or by the Council.

## ▼<u>B</u>

## Article 10

#### **Final provisions**

1. Member States shall bring; into force the laws, regulations and administrative provisions necessary to comply with this Directive not later than 31 December 1992. They shall immediately inform the Commission thereof.

## ▼<u>M2</u>

<sup>(&</sup>lt;sup>1</sup>) OJ L 123, 12.5.2016, p. 1.

2. Member States shall communicate to the Commission the text of the provisions of national law which they adopt, as well as those already adopted, in the field covered by this Directive.

## ▼<u>M1</u>

# ▼<u>B</u>

## Article 11

This Directive is addressed to the Member States.

#### ANNEX I

#### RISKS IN RELATION TO THE BODY PARTS TO BE PROTECTED BY PPE (\*)

(\*) This list of risks/parts of the body cannot be expected to be exhaustive.

The risk assessment will determine the need to provide a PPE and its characteristics according to the provisions of this Directive.

|                                   |           |             | RISKS    |     |     |      |     |     |     |       |                                       |      |                                    |                       |                                   |          |                         |                          |           |                           |          |                    |                                |   |                             |        |            |            |
|-----------------------------------|-----------|-------------|----------|-----|-----|------|-----|-----|-----|-------|---------------------------------------|------|------------------------------------|-----------------------|-----------------------------------|----------|-------------------------|--------------------------|-----------|---------------------------|----------|--------------------|--------------------------------|---|-----------------------------|--------|------------|------------|
|                                   |           |             | PHYSICAL |     |     |      |     |     |     |       | CHEMICAL (including nanomaterial) (*) |      |                                    | ial) (*)              | BIOLOGICAL AGENTS (contained in)  |          |                         | OTHER RISKS              |           |                           |          |                    |                                |   |                             |        |            |            |
|                                   |           |             |          |     | MEC | HANI | CAL |     |     | NOISE | THERMAL                               |      | THERMAL ELECTRICAL                 |                       | RADIATION                         |          | AEROSOLS                |                          | LIQUIDS   | GASES AND                 | AEROSOLS | LIQU               | IDS                            | MATERIALS,<br>PERSONS,<br>ANIMALS, ETC. | DROW-                       | OXYGEN | NON-       |            |
|                                   |           |             | (1)      | (2) | (3) | (4)  | (5) | (6) | (7) |       | Heat<br>and/or fire                   | Cold | Electric<br>shock ( <sup>8</sup> ) | Static<br>electricity | Non-<br>ionizing ( <sup>9</sup> ) | Ionizing | Solid ( <sup>10</sup> ) | Liquid ( <sup>11</sup> ) | Immersion | Splashes,<br>sprays, jets | VAPOURS  | Solids and liquids | Direct and<br>indirect contact | Splashes,<br>sprays, jets               | Direct and indirect contact | NING   | deficiency | VISIBILITY |
|                                   | Head      | Cranium     |          |     |     |      |     |     |     |       |                                       |      |                                    |                       |                                   |          |                         |                          |           |                           |          |                    |                                |   |                             |        |            |            |
|                                   | rieau     | Whole head  |          |     |     |      |     |     |     |       |                                       |      |                                    |                       |                                   |          |                         |                          |           |                           |          |                    |                                |   |                             |        |            |            |
| G                                 | Ears      |             |          |     |     |      |     |     |     |       |                                       |      |                                    |                       |                                   |          |                         |                          |           |                           |          |                    |                                |   |                             |        |            |            |
| ECTI                              | Eyes      |             |          |     |     |      |     |     |     |       |                                       |      |                                    |                       |                                   |          |                         |                          |           |                           |          |                    |                                |   |                             |        |            |            |
| ROT                               | Face      |             |          |     |     |      |     |     |     |       |                                       |      |                                    |                       |                                   |          |                         |                          |           |                           |          |                    |                                |   |                             |        |            |            |
| BEP                               | Respira   | tory system |          |     |     |      |     |     |     |       |                                       |      |                                    |                       |                                   |          |                         |                          |           |                           |          |                    |                                |   |                             |        |            |            |
| PARTS OF THE BODY TO BE PROTECTED | Hands     |             |          |     |     |      |     |     |     |       |                                       |      |                                    |                       |                                   |          |                         |                          |           |                           |          |                    |                                |   |                             |        |            |            |
| <u>í</u>                          | Arms (p   | arts)       |          |     |     |      |     |     |     |       |                                       |      |                                    |                       |                                   |          |                         |                          |           |                           |          |                    |                                |   |                             |        |            |            |
| HEB                               | Foot      |             |          |     |     |      |     |     |     |       |                                       |      |                                    |                       |                                   |          |                         |                          |           |                           |          |                    |                                |   |                             |        |            |            |
| OFT                               | Legs (pa  | arts)       |          |     |     |      |     |     |     |       |                                       |      |                                    |                       |                                   |          |                         |                          |           |                           |          |                    |                                |   |                             |        |            |            |
| STS (                             | Skin      |             |          |     |     |      |     |     |     |       |                                       |      |                                    |                       |                                   |          |                         |                          |           |                           |          |                    |                                |   |                             |        |            |            |
| ΡV                                | Trunk/    | Abdomen     |          |     |     |      |     |     |     |       |                                       |      |                                    |                       |                                   |          |                         |                          |           |                           |          |                    |                                |   |                             |        |            |            |
|                                   | Partial l | ody         |          |     |     |      |     |     |     |       |                                       |      |                                    |                       |                                   |          |                         |                          |           |                           |          |                    |                                |   |                             |        |            |            |
|                                   | Whole     | oody        |          |     |     |      |     |     |     |       |                                       |      |                                    |                       |                                   |          |                         |                          |           |                           |          |                    |                                |   |                             |        |            |            |

(<sup>1</sup>) Impact caused by falling or ejected objects, collision with an obstacle and high-pressure jets (?) Falls due to slipping (?) Falls from a height (?) Static compression of parts of the body (?) Mechanical injuries (abrasion, perforation, cuts, bites, wounds or stabs) (?) Entanglement and trapping (8) Direct or indirect contact (9) Including sunlight (other than direct observation) (<sup>10</sup>) Dusts, fumes, smokes and fibres (<sup>11</sup>) Mists and fogs

(\*) See Recommendation 2011/696/EU on the definition of nanomaterial

## ANNEX II

#### NON-EXHAUSTIVE LIST OF TYPES OF PERSONAL PROTECTIVE EQUIPMENT WITH REGARD TO THE RISKS THEY PROVIDE PROTECTION AGAINST

## **Equipment for HEAD PROTECTION**

- Helmets and/or caps/balaclavas/headgears against:
  - Impacts caused by falling or ejected object
  - Collision with an obstacle
  - Mechanical risks (perforation, abrasion)
  - Static compression (lateral crushing)
  - Thermal risks (fire, heat, cold, hot solids including molten metals)
  - Electric shock and live working
  - Chemical risks
  - Non-ionizing radiation (UV, IR, solar or welding radiation)
- Hairnets against risk of entanglement

#### **Equipment for HEARING PROTECTION**

- Earmuffs (including e.g. earmuffs attached to a helmet, active noise reduction earmuffs, earmuffs with electrical audio input)
- Earplugs (including e.g. level-dependent earplugs, earplugs adapted to the individual)

## Equipment for EYE AND FACE PROTECTION

- Spectacles, goggles and face shields (prescription lenses where appropriate) against:
  - Mechanical risks
  - Thermal risks
  - Non-ionizing radiation (UV, IR, solar or welding radiation)
  - Ionizing radiation
  - Solid aerosols and liquids of chemical and biological agents

## Equipment for RESPIRATORY PROTECTION

- Filtering devices against:
  - Particles
  - Gases
  - Particles and gases
  - Solid and/or liquid aerosols
- Insulating devices, including with an air supply
- Self-rescue devices
- Diving equipment

## Equipment for HAND AND ARM PROTECTION

- Gloves (including mittens and arm protection) against:
  - Mechanical risks
  - Thermal risks (heat, flame and cold)
  - Electric shock and live working (antistatic, conductive, insulating)
  - Chemical risks
  - Biological agents
  - Ionizing radiation and radioactive contamination
  - Non-ionizing radiation (UV, IR, solar or welding radiation)
  - Vibration risks
- Finger stalls

## Equipment for FOOT AND LEG PROTECTION and anti-slip protection

- Footwear (e.g. shoes, including in certain circumstances clogs, boots that may have steel toe-caps) to protect against:
  - Mechanical risks
  - Slipping risks
  - Thermal risks (heat, flame and cold)
  - Electric shock and live working (antistatic, conductive, insulating)
  - Chemicals risks
  - Vibration risks
  - Biological risks
- Removable instep protectors against mechanical risks
- Kneepads against mechanical risks
- Gaiters against mechanical, thermal and chemical risks and biological agents
- Accessories (e.g. spikes, crampons)

#### SKIN PROTECTION — BARRIER CREAMS (1)

- There could be barrier creams to protect against:
  - Non ionizing radiation (UV, IR, solar or welding radiation)
  - Ionizing radiation
  - Chemicals
  - Biological agents
  - Thermal risks (heat, flame and cold)

<sup>(1)</sup> In certain circumstances, as a result of the risk assessment, barrier creams could be used together with other PPE with the aim of protecting workers' skin from related risks. Barrier creams are PPE under the scope of Directive 89/656/EEC as this type of equipment can be considered in certain circumstances as 'additional or accessory' within the meaning of Article 2 of Directive 89/656/EEC. However, barrier creams are not PPE according to the definition in Article 3(1) of Regulation (EU) 2016/425.

#### Equipment for BODY PROTECTION/OTHER SKIN PROTECTION

- Personal protective equipment for protection against falls from a height, such as retractable type fall arresters, full body harnesses, sit harnesses, belts for work positioning and restraint and work positioning lanyards, energy absorbers, guided-type fall arresters including an anchor line, rope adjustment devices, anchor devices that are not designed to be permanently fixed and that do not require fastening works before use, connectors, lanyards, rescue harness
- Protective clothing, including whole body (i.e. suits, overalls) protection and partial body (i.e. gaiters, trousers, jackets, waistcoats, aprons, kneepads, hoods, balaclavas) protection against:
  - Mechanical risks
  - Thermal risks (heat, flame and cold)
  - Chemicals
  - Biological agents
  - Ionizing radiation and radioactive contamination
  - Non-ionizing radiation (UV, IR, solar or welding radiation)
  - Electric shock and live working (antistatic, conductive, insulating)
  - Entanglement and trapping
- Lifejackets for prevention of drowning and buoyancy aids
- PPE for signalling the user's presence visually

## ANNEX III

# NON-EXHAUSTIVE LIST OF ACTIVITIES AND SECTORS OF ACTIVITY WHICH MAY REQUIRE THE PROVISION OF PERSONAL PROTECTIVE EQUIPMENT (\*)

(\*) The risk assessment will determine the need to provide a PPE and its characteristics according to the provisions of this Directive

## I. PHYSICAL RISKS

| Risks  | Body part affected<br>Type of PPE | Examples of activities where the use of the corresponding<br>type of PPE may be necessary (*)   | Industry and Sectors  |
|--|-----------------------------------|---|---|
|  | •                                 | PHYSICAL — MECHANICAL   |   |
| Impact caused<br>by falling or<br>ejected<br>objects,<br>collision with<br>an obstacle<br>and<br>high-pressure<br>jets | Cranium<br>Protective<br>helmet   | <ul> <li>Work on, underneath or in the vicinity of scaffolding and elevated workplaces</li> <li>Carcase Work and road work</li> <li>Formwork's erection and stripping</li> <li>Scaffolding's assembly and installation</li> <li>Assembly and installation works</li> <li>Demolitions</li> <li>Blasting works</li> <li>Work in pits, trenches, shafts and tunnels</li> <li>Work in the vicinity of lifts, lifting gear, cranes, and conveyors</li> <li>Works in underground workings, quarries, open diggings</li> <li>Work with industrial furnaces, containers, machinery, silos, bunkers and pipelines</li> <li>Slaughtering and Cutting line at slaughterhouses</li> <li>Load handling or Transport and storage</li> <li>Forest work</li> <li>Work on steel bridges, steel building construction, steel hydraulic structures, blast furnaces, steel works and rolling mills, large containers, large pipelines, boiler plants and power stations</li> <li>Earth and rock works</li> <li>Work with blast furnaces, direct reduction plants, steelworks, rolling mills, metalworks, forging, drop forging and casting</li> <li>Work involving travelling on bicycles and mechanically propelled bikes</li> </ul> | <ul> <li>Building construction</li> <li>Civil engineering construction</li> <li>Machinery manufacturing, installation and maintenance</li> <li>Shipbuilding</li> <li>Mining works</li> <li>Energy production</li> <li>Infrastructure construction and maintenance</li> <li>Iron and Steel industry</li> <li>Slaughterhouses</li> <li>Railway shunting work</li> <li>Harbours, transport and logistics</li> <li>Forest Industry</li> </ul> |

| ▼ | M3 |
|---|----|
|   |    |

| Risks | Body part affected<br>Type of PPE   | Examples of activities where the use of the corresponding<br>type of PPE may be necessary (*)  | Industry and Sectors  |
|-------|---|--|---|
|       | Eyes and/or face<br>Spectacles,<br>goggles and face<br>shields  | <ul> <li>Welding, grinding and separating work</li> <li>Manual hammering</li> <li>Caulking and chiselling</li> <li>Rock working and processing</li> <li>Work with bolt-driving tools</li> <li>Work on stock removing machines for small chippings</li> <li>Drop forging</li> <li>The removal and breaking up of fragments</li> <li>Spraying of abrasive substances</li> <li>Use of brush cutter or chainsaw</li> <li>Dental and surgical procedures</li> </ul>   | <ul> <li>Building construction</li> <li>Civil engineerir construction</li> <li>Machinery manufa turing, installation ar maintenance</li> <li>Shipbuilding</li> <li>Mining works</li> <li>Energy production</li> <li>Infrastructure construction and maintenance</li> <li>Iron and Steel industriatenance</li> <li>Iron and Steel industriatenance</li> <li>Stone carving</li> <li>Gardening</li> <li>Healthcare</li> <li>Forestry</li> </ul>      |
|       | Foot and leg<br>(parts)<br>Footwear<br>(shoes/boots,<br>etc.) with safety<br>or protective<br>toecap<br>Footwear with<br>metatarsal<br>protection | <ul> <li>Carcase Work and road work</li> <li>Erection and stripping of formwork</li> <li>Scaffolding's assembly and installation</li> <li>Demolitions</li> <li>Blasting works</li> <li>Working and processing of rock</li> <li>Slaughtering and Cutting line works</li> <li>Transport and storage</li> <li>Work with moulds in the ceramics industry</li> <li>Work with frozen meat blocks and preserved foods packaging</li> <li>Flat glass products and container glassware manufacture, working and processing</li> <li>Conversion and maintenance work</li> <li>Forest works</li> <li>Work with concrete and prefabricated parts involving formwork erection and stripping</li> <li>Work in contractors' yards and warehouses</li> <li>Roof work</li> <li>Work on steel bridges, steel building construction, masts, towers, lifts, steel hydraulic structures, blast furnaces, steelworks and rolling mills, large containers, large pipelines, cranes, boiler plants and power stations</li> </ul> | <ul> <li>Building construction</li> <li>Civil engineerin construction</li> <li>Machinery manufa turing, installation at maintenance</li> <li>Shipbuilding</li> <li>Mining works</li> <li>Energy production</li> <li>Infrastructure construction and mai tenance</li> <li>Iron and Steel industry</li> <li>Slaughterhouses</li> <li>Logistic Companies</li> <li>Manufacturing Industry</li> <li>Glass Industry</li> <li>Forest Industry</li> </ul> |

| Body part affected<br>Type of PPE  | Examples of activities where the use of the corresponding<br>type of PPE may be necessary (*)   | Industry and Sectors   |
|--|---|--|
|  | <ul> <li>Furnace construction, heating and ventilation installation and metal assembly work</li> <li>Work with blast furnaces, direct reduction plants, steelworks, rolling mills, metal works, forging, drop forging, hot pressing and drawing plants</li> <li>Work in quarries and open diggings, coal stock removal</li> <li>Work with moulds in the ceramics industry</li> <li>Lining of kilns in the ceramics industry</li> <li>Railway shunting work</li> </ul> |  |
| Foot<br>Slip-resistant<br>footwear   | — Works on slippery surfaces<br>— Works on humidity environments  | <ul> <li>Building construction</li> <li>Civil engineering construction</li> <li>Shipbuilding</li> <li>Slaughterhouse</li> <li>Cleaning</li> <li>Food industries</li> <li>Gardening</li> <li>Fishing industry</li> </ul>  |
| Whole body<br>PPE designed to<br>prevent or<br>arrest falls from<br>height | <ul> <li>Work on scaffolding</li> <li>Assembly of prefabricated parts</li> <li>Works on masts</li> <li>Roof work</li> <li>Work on vertical or slope surfaces</li> <li>Work in high crane cabs</li> <li>Work in high cabs of warehouse stacking and retrieval equipment</li> <li>Work in high sections of drilling towers</li> <li>Work in shafts and sewers</li> </ul>  | <ul> <li>Building construction</li> <li>Civil engineering const<br/>uction</li> <li>Shipbuilding</li> <li>Infrastructure maintenand</li> </ul>   |
| Hands<br>Protective<br>Gloves  | — Works with hand-guided tools  | — Manufacturing industrie<br>— Building work<br>— Civil Engineering work   |
| Knee (leg parts)<br><b>Kneepads</b>  | — Installation of blocks, tiles and pavers on the floor   | <ul> <li>Building construction</li> <li>Civil engineering construction</li> </ul>  |
|  | Type of PPE         Foot         Slip-resistant         footwear         Whole body         PPE designed to         prevent or         arrest falls from         height         Hands         Protective         Gloves   | Type of PPEtype of PPE may be necessary (*)Type of PPE— Furnace construction, heating and ventilation<br>installation and metal assembly work— Work with blast furnaces, direct reduction<br>plants, steelworks, rolling mills, metal works,<br>forging, drop forging, hot pressing and<br>drawing plants— Work with moulds in the ceramics industry<br>— Lining of kilns in the ceramics industry<br>— Railway shunting workFoot<br>Slip-resistant<br>footwear— Works on slippery surfaces<br>— Works on humidity environmentsWork body<br>PPE designed to<br>prevent or<br>height— Work on scaffolding<br>— Assembly of prefabricated parts<br>— Works on masts<br>— Work in high crane cabs<br>— Work in high sections of drilling towers<br>— Work in shafts and sewersHands<br>Knee (leg parts)— Works with hand-guided toolsKnee (leg parts)— Installation of blocks, tiles and pavers on the |

| Risks   | Body part affected<br>Type of PPE  | Examples of activities where the use of the corresponding<br>type of PPE may be necessary (*)   | Industry and Sectors   |
|---|--|---|--|
|   | Foot<br>Footwear with<br>toecaps   | — Demolitions<br>— Load handling  | <ul> <li>Building construction</li> <li>Civil engineering construction</li> <li>truction</li> <li>Transport and storage</li> <li>Maintenance</li> </ul>  |
|   | Eyes and/or face<br>Spectacles,<br>goggles, face<br>shields  | <ul> <li>Works with hand-guided tools</li> <li>Welding and forging</li> <li>Grinding and separating work</li> <li>Chiselling</li> <li>Rock working and processing</li> <li>Work on stock removing machines for small chippings</li> <li>Drop forging</li> <li>The removal and breaking up of fragments</li> <li>Spraying of abrasive substances</li> <li>Use of brush cutter or chainsaw</li> </ul> | <ul> <li>Building construction</li> <li>Civil engineering construction</li> <li>Civil engineering construction</li> <li>Shipbuilding</li> <li>Mining works</li> <li>Energy production</li> <li>Infrastructure maintenance</li> <li>Iron and Steel industries</li> <li>Metal and Wood industries</li> <li>Stone carving</li> <li>Gardening</li> <li>Forestry</li> </ul> |
| Mechanical<br>injuries<br>(abrasion,<br>perforation,<br>cuts, bites,<br>wounds or<br>stabs) | Hands<br>Mechanical<br>protective<br>gloves  | <ul> <li>Works with steel framework</li> <li>Handling of sharp-edged objects, other than machines where there is a danger of the gloves being caught</li> <li>Regular cutting using a hand knife for production and slaughtering</li> <li>Changing the knives of cutting machines</li> <li>Forest works</li> <li>Gardening work</li> </ul>  | <ul> <li>Building construction</li> <li>Civil engineering construction</li> <li>Civil on construction</li> <li>Shipbuilding</li> <li>Infrastructure maintenance</li> <li>Manufacturing industries</li> <li>Food industry</li> <li>Slaughter</li> <li>Forest industry</li> </ul>  |
|   | Forearms<br>Arm protection   | — Boning and cutting  | — Food industry<br>— Slaughter   |
|   | Trunk/Abdomen/<br>Leg<br>Protective<br>apron, gaiters<br>Penetration<br>resistance<br>trousers (cut-<br>resistant<br>trousers) | <ul> <li>Regular cutting using a hand knife for production and slaughtering</li> <li>Forest works</li> </ul>  | — Food industry<br>— Slaughter<br>— Forest industry  |

| Risks                        | Body part affected<br>Type of PPE   | Examples of activities where the use of the corresponding<br>type of PPE may be necessary (*)  | Industry and Sectors   |
|------------------------------|---|--|--|
|                              | Foot<br>Penetration<br>resistance<br>footwear   | <ul> <li>Carcase works and road works</li> <li>Demolition</li> <li>Formwork's erection and stripping</li> <li>Forest works</li> </ul>  | <ul> <li>Building construction</li> <li>Civil engineering construction</li> <li>Shipbuilding</li> <li>Mining works</li> <li>Forest industry</li> </ul> |
| Entanglement<br>and trapping | Whole body<br>Protective<br>clothing for use<br>where there is a<br>risk of<br>entanglement<br>with moving<br>parts | <ul> <li>Entangle oneself in parts of machines</li> <li>Get caught in parts of machines</li> <li>Get caught with garment in parts of machines</li> <li>Get swept away</li> </ul> | <ul> <li>Machine building</li> <li>Manufacture of heavy-duty machines</li> <li>Engineering</li> <li>Construction</li> <li>Agriculture</li> </ul>       |

## PHYSICAL — NOISE

| Noise | Ears<br>Hearing<br>protectors | <ul> <li>Work with metal presses</li> <li>Work with pneumatic drills</li> <li>The work of ground staff at airports</li> <li>Works with power tools</li> <li>Blasting works</li> <li>Pile-driving work</li> <li>Wood and textile working</li> </ul> | <ul> <li>Metal Industry</li> <li>Manufacturing industry</li> <li>Building construction</li> <li>Civil engineering construction</li> <li>Aeronautical industry</li> <li>Mining works</li> </ul> |
|-------|-------------------------------|--|--|
|-------|-------------------------------|--|--|

## PHYSICAL — THERMAL

| Heat and/or<br>fire | Face/Whole head<br>Welding<br>headshields,<br>helmets/caps<br>against heat or<br>fire, protective<br>hoods against<br>heat and/or<br>flame | <ul> <li>Work in presence of high temperatures, radiating heat or fire</li> <li>Work with or in the vicinity of molten substances</li> <li>Work with welding plastics guns</li> </ul> | <ul> <li>Iron and Steel Industry</li> <li>Metal Industry</li> <li>Maintenance services</li> <li>Manufacturing Industry</li> </ul> |
|---------------------|--|---|---|
| -                   | Trunk/abdomen/<br>legs<br>Protective<br>apron, gaiters   | <ul><li>— Welding and forging</li><li>— Casting</li></ul>   | <ul> <li>Iron and Steel Industry</li> <li>Metal Industry</li> <li>Maintenance services</li> <li>Manufacturing industry</li> </ul> |

| Risks | Body part affected<br>Type of PPE  | Examples of activities where the use of the corresponding<br>type of PPE may be necessary (*)   | Industry and Sectors   |
|-------|--|---|--|
|       | Hand<br>Protective<br>gloves against<br>heat and/or<br>flame   | <ul> <li>Welding and forging</li> <li>Work in presence of high temperatures, radiating heat or fire</li> <li>Work with or in the vicinity of molten substances</li> </ul> | <ul> <li>Iron and Steel Industry</li> <li>Metal Industry</li> <li>Maintenance services</li> <li>Manufacturing industry</li> </ul>  |
|       | Forearms<br>Sleeves  | <ul> <li>Welding and forging</li> <li>Work with or in the vicinity of molten substances</li> </ul>  | <ul> <li>Iron and Steel Industry</li> <li>Metal Industry</li> <li>Maintenance services</li> <li>Manufacturing industry</li> </ul>  |
|       | Foot<br>Footwear<br>against heat<br>and/or flame   | — Work with or in the vicinity of molten substances   | <ul> <li>Iron and Steel Industry</li> <li>Metal Industry</li> <li>Maintenance services</li> <li>Manufacturing industry</li> </ul>  |
|       | Whole/partial<br>body<br>Protective<br>clothing against<br>heat and/or<br>flame                        | <ul> <li>Work in presence of high temperatures,<br/>radiating heat or fire</li> </ul>   | <ul> <li>Iron and Steel Industry</li> <li>Metal Industry</li> <li>Forest Industry</li> </ul>   |
|       | Hand<br>Protective<br>gloves against<br>cold<br>Foot<br>Footwear<br>against cold                       | <ul> <li>Work in the open air in extreme cold conditions</li> <li>Work in deep-freeze rooms</li> <li>Work with cryogenic liquids</li> </ul>                               | <ul> <li>Building construction</li> <li>Civil engineering construction</li> <li>Civil engineering construction</li> <li>Shipbuilding</li> <li>Mining works</li> <li>Food Industry</li> <li>Agriculture and fisheries sector</li> </ul> |
| Cold  | Whole/partial<br>body including<br>head<br><b>Protective</b><br><b>clothing against</b><br><b>cold</b> | <ul> <li>Work in the open air in cold weather conditions</li> <li>Work in deep-freeze rooms</li> </ul>  | <ul> <li>Building construction</li> <li>Civil engineering construction</li> <li>Shipbuilding</li> <li>Mining works</li> <li>Food Industry</li> <li>Agriculture and fisheries sector</li> <li>Transport and storage</li> </ul>          |

# PHYSICAL – ELECTRICAL

| Risks                   | Body part affected<br>Type of PPE   | Examples of activities where the use of the corresponding type of PPE may be necessary (*)   | Industry and Sectors  |
|-------------------------|---|--|---|
|                         | Foot<br>Electrically<br>insulating<br>footwear<br>Whole body/<br>Hands/Foot<br>Conductive PPE<br>intended to be<br>worn by skilled<br>persons during<br>live working at<br>a nominal<br>power system<br>voltage up to<br>800 kV AC and<br>600 kV DC |  |   |
| Static elec-<br>tricity | Hands<br>Antistatic gloves<br>Foot<br>Antistatic/<br>conductive-<br>footwear<br>Whole body<br>Antistatic<br>clothing  | <ul> <li>Handling plastic and rubber</li> <li>Pouring, collecting or loading into a container</li> <li>Work near to highly charged elements such as conveyor belts</li> <li>Handling explosives</li> </ul> | <ul> <li>Manufacturing industry</li> <li>Feed industry</li> <li>Bagging and packir plants</li> <li>Production, storage transport of explosives</li> </ul> |

## PHYSICAL - RADIATION

| Non-ionizing<br>radiation,<br>including<br>sunlight (other<br>than direct<br>observation) | Head<br>Caps and<br>helmets   | — Work in open air  | <ul> <li>Fishing and agriculture</li> <li>Building construction</li> <li>Civil engineering construction</li> </ul>   |
|---|---|---|--|
|   | Eyes<br>Protective spec-<br>tacles, goggles<br>and face shields     | <ul> <li>Work with radiant heat</li> <li>Furnace operations</li> <li>Work with laser</li> <li>Work in open air</li> <li>Welding and gas cutting</li> <li>Glass blowing</li> <li>Germicidal lamps</li> </ul> | <ul> <li>— Iron and Steel Industries</li> <li>— Manufacturing industry</li> <li>— Fishing and agriculture</li> </ul>   |
|   | Whole body<br>(skin)<br>PPE against<br>Natural and<br>artificial UV | <ul> <li>Work in the open air</li> <li>Electrical welding</li> <li>Germicidal lamps</li> <li>Xenon lamps</li> </ul>   | <ul> <li>Building construction</li> <li>Civil engineering construction</li> <li>Shipbuilding</li> <li>Mining works</li> <li>Energy production</li> <li>Infrastructure maintenance</li> </ul> |

| Risks                 | Body part affected<br>Type of PPE   | Examples of activities where the use of the corresponding<br>type of PPE may be necessary (*)   | Industry and Sectors   |
|-----------------------|---|---|--|
|                       |   |   | <ul> <li>Fishing and agriculture</li> <li>Forest industry</li> <li>Gardening</li> <li>Food industry</li> <li>Plastic industry</li> <li>Printing industry</li> </ul>    |
|                       | Eyes<br>Protective spec-<br>tacles/goggles<br>against ionizing<br>radiation<br>Hands<br>Protective<br>gloves against<br>ionizing<br>radiation | <ul> <li>— Operating in X-ray facilities</li> <li>— Operating in the area of medical radio diagnosis</li> <li>— Work with radioactive products</li> </ul> | <ul> <li>Healthcare</li> <li>Veterinary care</li> <li>Radioactive waste plan</li> <li>Energy production</li> </ul>   |
| Ionizing<br>radiation | Trunk/abdomen/<br>partial body<br><b>Protective</b><br><b>apron against</b><br><b>x-rays</b><br>/Coat/Vest/Skirt<br><b>against x-rays</b>     | <ul> <li>— Operating in X-ray facilities</li> <li>— Operating in the area of medical radio diagnosis</li> </ul>   | <ul> <li>Healthcare</li> <li>Veterinary care</li> <li>Dental care</li> <li>Urology</li> <li>Surgery</li> <li>Interventional radiology</li> <li>Laboratories</li> </ul> |
|                       | Head<br>Headwear &<br>Caps<br>PPE for<br>protection<br>against e.g.<br>development of<br>brain tumours  | — Medical X-ray work places and facilities  | <ul> <li>Healthcare</li> <li>Veterinary care</li> <li>Dental care</li> <li>Urology</li> <li>Surgery</li> <li>Interventional radiology</li> </ul>                       |
|                       | Partial body<br>PPE for thyroid<br>protection<br>PPE for gonads<br>protection   | <ul> <li>— Operating in X-ray facilities</li> <li>— Operating in the area of medical radio diagnosis</li> </ul>   | — Healthcare<br>— Veterinary care  |
|                       | Whole body<br>Protective<br>clothing against<br>ionizing<br>radiation   | <ul> <li>— Operating in the area of medical radio diagnosis</li> <li>— Work with radioactive products</li> </ul>  | <ul> <li>Energy production</li> <li>Radioactive waste plan</li> </ul>  |

| Risks   | Body part affected<br>Type of PPE   | Examples of activities where the use of the corresponding type of PPE may be necessary (*)   | Industry and Sectors   |
|---|---|--|--|
|   |   | CHEMICAL — AEROSOLS  | <u> </u>   |
|   | Respiratory<br>system<br>Respiratory<br>protective<br>devices against<br>particles                                | <ul> <li>Demolition</li> <li>Blasting works</li> <li>Sanding and Polishing of surfaces</li> <li>Work in presence of asbestos</li> <li>Use of materials consisting of/containing nanoparticles</li> <li>Welding</li> <li>Chimney sweeper</li> <li>Work on the lining of furnaces and ladles where there may be dust</li> <li>Work in the vicinity of blast furnace taps where there may be heavy metal fumes</li> <li>Work in the vicinity of the blast furnace charge</li> </ul> | <ul> <li>Building construction</li> <li>Civil engineering construction</li> <li>Shipbuilding</li> <li>Mining works</li> <li>Iron and Steel industri</li> <li>Metal and Wood industri</li> <li>Automotive industry</li> <li>Stone carving</li> <li>Pharmaceuticals industri</li> <li>Healthcare services</li> <li>Preparation of cytostation</li> </ul> |
| Solid (dusts,<br>fumes,<br>smokes, fibres,<br>and<br>nano-material) | Hands<br>Chemical<br>Protective<br>gloves<br>and barrier<br>cream as an<br>additional/<br>accessory<br>protection | <ul> <li>Work in presence of asbestos</li> <li>Use of materials consisting of/containing nanoparticles</li> </ul>  | <ul> <li>Building construction</li> <li>Civil engineering con truction</li> <li>Shipbuilding</li> <li>Industrial facilities main tenance</li> </ul>  |
|   | Whole body<br>Protective<br>clothing against<br>solid particles   | <ul> <li>Demolition</li> <li>Work in presence of asbestos</li> <li>Use of materials consisting of/containing nanoparticles</li> <li>Chimney sweeper</li> <li>Preparation of plant protection products</li> </ul>   | <ul> <li>Building construction</li> <li>Civil engineering construction</li> <li>Shipbuilding</li> <li>Industrial facilities maitenance</li> <li>Agriculture</li> </ul>   |
|   | Eyes<br>Spectacles/<br>goggles and face<br>shields  | — Woodworking<br>— Road work   | <ul> <li>Mining industry</li> <li>Metal and wood indust</li> <li>Civil engineering cons<br/>uction</li> </ul>  |

## II. CHEMICAL RISKS (including nanomaterial)

| Risks                         | Body part affected<br>Type of PPE  | Examples of activities where the use of the corresponding<br>type of PPE may be necessary (*)   | Industry and Sectors  |
|-------------------------------|--|---|---|
|                               | Respiratory<br>system<br>Respiratory<br>protective<br>devices against<br>particles | <ul> <li>Surface treatment (e.g. varnishing/painting, abrasive blasting)</li> <li>Surface cleaning</li> </ul>   | <ul> <li>Metal Industry</li> <li>Manufacturing Industry</li> <li>Automotive sector</li> </ul> |
| Liquid<br>(mists and<br>fogs) | Hands<br>Chemical<br>protective<br>gloves  | <ul> <li>Surface treatment</li> <li>Surface cleaning</li> <li>Work with liquid sprays</li> <li>Works with acids and caustic solutions, disinfectants and corrosive cleaning substances</li> </ul> | <ul> <li>Metal Industry</li> <li>Manufacturing industry</li> <li>Automotive sector</li> </ul> |
|                               | Whole body<br>Chemical<br>protective<br>clothing                                   | <ul> <li>— Surface treatment</li> <li>— Surface cleaning</li> </ul>   | <ul> <li>Metal Industry</li> <li>Manufacturing industry</li> <li>Automotive sector</li> </ul> |

## $\mathbf{CHEMICAL} - \mathbf{LIQUIDS}$

| Immersion<br>Splashes,<br>sprays and<br>jets | Hands<br>Chemical<br>protective<br>gloves,        | <ul> <li>Work with liquid sprays</li> <li>Works with acids and caustic solutions, disinfectants and corrosive cleaning products</li> <li>Processing of coating materials</li> <li>Tanning</li> <li>Work in hairdressers and beauty salons</li> </ul> | <ul> <li>Textile and clothing industry</li> <li>Cleaning industry</li> <li>Automobile industry</li> <li>Beauty and hairdressing sectors</li> </ul> |
|--|---|--|--|
|  | Forearms<br>Chemical<br>protective<br>sleeves     | <ul> <li>Works with acids and caustic solutions, disin-<br/>fectants and corrosive cleaning products</li> </ul>  | <ul> <li>Cleaning</li> <li>Chemical industry</li> <li>Cleaning industry</li> <li>Automobile industry</li> </ul>                                    |
|  | Foot<br>Chemical<br>protective boots              | <ul> <li>Work with liquid sprays</li> <li>Works with acids and caustic solutions, disinfectants and corrosive cleaning products</li> </ul>   | <ul> <li>Textile and clothing industry</li> <li>Cleaning industry</li> <li>Automobile industry</li> </ul>  |
|  | Whole body<br>Chemical<br>protective-<br>clothing | <ul> <li>Work with liquid sprays</li> <li>Works with acids and caustic solutions, disinfectants and corrosive cleaning products</li> </ul>   | <ul> <li>Cleaning</li> <li>Chemical industry</li> <li>Cleaning industry</li> <li>Automobile industry</li> <li>Agriculture</li> </ul>               |

| Risks                | Body part affected<br>Type of PPE  | Examples of activities where the use of the corresponding<br>type of PPE may be necessary (*)   | Industry and Sectors   |
|----------------------|--|---|--|
|                      |  | CHEMICAL — GASES AND VAPOURS  |  |
|                      | Respiratory<br>system<br>Respiratory<br>protective<br>devices against<br>gases | <ul> <li>Surface treatment (e.g. varnishing/painting, abrasive blasting)</li> <li>Surface cleaning</li> <li>Work in fermentation and distilling rooms</li> <li>Work inside tanks and digesters</li> <li>Work in containers, restricted areas and gas-fired industrial furnaces where there may be gas or insufficient oxygen</li> <li>Chimney sweeper</li> <li>Disinfectants and corrosive cleaning substances</li> <li>Work in the vicinity of gas converters and blast furnace gas pipes</li> </ul> | <ul> <li>Metal Industry</li> <li>Automotive sector</li> <li>Manufacturing industry</li> <li>Cleaning industry</li> <li>Alcoholic drinks production</li> <li>Wastewater treatment plants</li> <li>Waste treatment plant</li> <li>Chemical Industry</li> <li>Petrochemical industry</li> </ul> |
| Gases and<br>vapours | Hands<br>Chemical<br>protective<br>gloves                                      | <ul> <li>Surface treatment</li> <li>Surface cleaning</li> <li>Work in fermentation and distilling rooms</li> <li>Work inside tanks and digesters</li> <li>Work in containers, restricted areas and gas-fired industrial furnaces where there may be gas or insufficient oxygen</li> </ul>   | <ul> <li>Metal Industry</li> <li>Automotive sector</li> <li>Manufacturing industry</li> <li>Alcoholic drinks production</li> <li>Wastewater treatment plants</li> <li>Waste treatment plant</li> <li>Chemical Industry</li> <li>Petrochemical industry</li> </ul>                            |
|                      | Whole body<br>Chemical<br>protective<br>clothing                               | <ul> <li>Surface treatment</li> <li>Surface cleaning</li> <li>Work in fermentation and distilling rooms</li> <li>Work inside tanks and digesters</li> <li>Work in containers, restricted areas and gas-fired industrial furnaces where there may be gas or insufficient oxygen</li> </ul>   | <ul> <li>Metal Industry</li> <li>Automotive sector</li> <li>Manufacturing industry</li> <li>Alcoholic drinks production</li> <li>Wastewater treatment plants</li> <li>Waste treatment plant</li> <li>Chemical Industry</li> <li>Petrochemical industry</li> </ul>                            |
|                      | Eyes<br>Spectacles,<br>goggles and face<br>shields                             | — Spray painting<br>— Woodworking<br>— Mining operations  | <ul> <li>— Automotive sector</li> <li>— Manufacturing industry</li> <li>— Mine industry</li> <li>— Chemical Industry</li> <li>— Petrochemical industry</li> </ul>  |

| Risks                 | Body part affected<br>Type of PPE  | Examples of activities where the use of the corresponding<br>type of PPE may be necessary (*)   | Industry and Sectors  |
|-----------------------|--|---|---|
|                       | BIOLO  | OGICAL AGENTS (contained in) - AEROSOLS   |   |
| Solids and<br>liquids | Respiratory<br>system<br>Respiratory<br>protective<br>devices against<br>particles   | <ul> <li>Work that involve contact with human body<br/>and animal fluids and tissues</li> <li>Work in presence of biological agent</li> </ul> | <ul> <li>Healthcare</li> <li>Veterinary clinics</li> <li>Clinical analysis laboratories</li> <li>Research Laboratories</li> <li>Retirement homes</li> <li>Homes assistances</li> <li>Wastewater treatment plants</li> <li>Waste treatment plant</li> <li>Food Industry</li> <li>Biochemical production</li> </ul> |
|                       | Hands<br>Protective<br>gloves against<br>microorganisms<br>Whole/partial<br>body<br>Protective<br>clothing against<br>biological agents<br>Eyes and/or face<br>Protective spec-<br>tacles, goggles<br>and face shields | <ul> <li>Work that involve contact with human body<br/>and animal fluids and tissues</li> <li>Work in presence of biological agent</li> </ul> | <ul> <li>Healthcare</li> <li>Veterinary clinics</li> <li>Clinical analysis laboratories</li> <li>Research Laboratories</li> <li>Retirement homes</li> <li>Homes assistances</li> <li>Wastewater treatmen plants</li> <li>Waste treatment plant</li> <li>Food Industry</li> </ul>                                  |

## III. BIOLOGICAL AGENTS

**BIOLOGICAL AGENTS (contained in) - LIQUIDS** 

| Direct and bot indirect clob bi Ey Pr gr | lands<br>Protective<br>loves against<br>nicroorganisms<br>Whole/partial<br>ody<br>Protective<br>lothing against<br>iological agents<br>Syes and/or face<br>Protective<br>oggles and face<br>hields | <ul> <li>Work that involve contact with human body<br/>and animal fluids and tissues (bites, stings)</li> <li>Work in presence of biological agent</li> </ul> | <ul> <li>Healthcare</li> <li>Veterinary clinics</li> <li>Clinical analysis laboratories</li> <li>Research Laboratories</li> <li>Retirement homes</li> <li>Homes assistances</li> <li>Wastewater treatment plants</li> <li>Waste treatment plant</li> <li>Food Industry</li> <li>Forest industry</li> </ul> |
|--|--|---|--|
|--|--|---|--|

| Risks              | Body part affected<br>Type of PPE                                    | Examples of activities where the use of the corresponding<br>type of PPE may be necessary (*)   | Industry and Sectors  |
|--------------------|--|---|---|
|                    | Hands<br>Protective<br>gloves against<br>microorganisms              | <ul> <li>Work that involve contact with human body<br/>and animal fluids and tissues</li> <li>Work in presence of biological agent</li> </ul> | <ul> <li>Healthcare</li> <li>Veterinary clinics</li> <li>Clinical analysis laboratories</li> <li>Research Laboratories</li> <li>Retirement homes</li> <li>Homes assistances</li> <li>Wastewater treatment plants</li> <li>Waste treatment plant</li> <li>Food Industry</li> </ul> |
| Splashes,          | Forearms<br>Protective<br>sleeves against<br>microorganisms          | <ul> <li>Work that involve contact with human body<br/>and animal fluids and tissues</li> <li>Work in presence of biological agent</li> </ul> | <ul> <li>Healthcare</li> <li>Veterinary clinics</li> <li>Clinical analysis laboratories</li> <li>Research Laboratories</li> <li>Retirement homes</li> <li>Homes assistances</li> <li>Wastewater treatment plants</li> <li>Waste treatment plant</li> <li>Food Industry</li> </ul> |
| sprays and<br>jets | Foot/legs<br>Protective over<br>boots and<br>gaiters                 | <ul> <li>Work that involve contact with human body<br/>and animal fluids and tissues</li> <li>Work in presence of biological agent</li> </ul> | <ul> <li>Healthcare</li> <li>Veterinary clinics</li> <li>Clinical analysis laboratories</li> <li>Research Laboratories</li> <li>Retirement homes</li> <li>Homes assistances</li> <li>Wastewater treatment plants</li> <li>Waste treatment plant</li> <li>Food Industry</li> </ul> |
|                    | Whole body<br>Protective<br>clothing against<br>biological<br>agents | <ul> <li>Work that involve contact with human body<br/>and animal fluids and tissues</li> <li>Work in presence of biological agent</li> </ul> | <ul> <li>Healthcare</li> <li>Veterinary clinics</li> <li>Clinical analysis laboratories</li> <li>Research Laboratories</li> <li>Retirement homes</li> <li>Homes assistances</li> <li>Wastewater treatment plants</li> <li>Waste treatment plant</li> <li>Food Industry</li> </ul> |

| Risks |
|-------|
|-------|

## **BIOLOGICAL AGENTS (contained in) - MATERIALS, PERSONS, ANIMALS, ETC.**

| Direct and<br>indirect<br>contact | Hands<br>Protective<br>gloves against<br>microorganisms<br>Whole/partial<br>body<br>Protective<br>clothing against<br>biological agents<br>Eyes and/or face<br>Protective<br>goggles and face<br>shields | <ul> <li>Work that involve contact with human body<br/>and animal fluids and tissues (bites, stings)</li> <li>Work in presence of biological agent</li> </ul> | <ul> <li>Healthcare</li> <li>Veterinary clinics</li> <li>Clinical analysis laboratories</li> <li>Research Laboratories</li> <li>Retirement homes</li> <li>Homes assistances</li> <li>Wastewater treatment plants</li> <li>Waste treatment plant</li> <li>Food Industry</li> <li>Forest industry</li> </ul> |
|-----------------------------------|--|---|--|
|-----------------------------------|--|---|--|

## IV. OTHER RISKS

| Risks                  | Body part affected<br>Type of PPE  | Examples of activities where the use of the corresponding<br>type of PPE may be necessary (*)   | Industry and Sectors  |
|------------------------|--|---|---|
| Non-visibility         | Whole body<br>PPE for<br>signalling the<br>user's presence<br>visually       | <ul> <li>Work in proximity of movement of vehicles</li> <li>Asphalt works and road marking</li> <li>Railway works</li> <li>Driving means of transport</li> <li>Work of ground staff at airport</li> </ul>   | <ul> <li>Building construction</li> <li>Civil engineering construction</li> <li>Shipbuilding</li> <li>Mining works</li> <li>Transport services and passengers transports</li> </ul> |
| Oxygen defi-<br>ciency | Respiratory<br>system<br>Insulating<br>respiratory<br>protectives<br>devices | <ul> <li>Work in confined spaces</li> <li>Work in fermentation and distilling rooms</li> <li>Work inside tanks and digesters</li> <li>Work in containers, restricted areas and gas-fired industrial furnaces where there may be gas or insufficient oxygen</li> <li>Work in shafts, sewers and other underground areas connected with sewage</li> </ul> | <ul> <li>Alcoholic drinks production</li> <li>Civil engineering construction</li> <li>Chemical Industry</li> <li>Petrochemical industry</li> </ul>                                  |
|                        | Respiratory<br>system<br><b>Diving</b><br>equipment                          | — Underwater works  | <ul> <li>— Civil engineering construction</li> </ul>  |

| Risks    | Body part affected<br>Type of PPE | Examples of activities where the use of the corresponding<br>type of PPE may be necessary (*)   | Industry and Sectors   |
|----------|-----------------------------------|---|--|
| Drowning | Whole body<br><b>Life jacket</b>  | <ul> <li>Work on or near water</li> <li>Work in the sea</li> <li>Work in an airplane</li> </ul> | <ul> <li>Fishing industry</li> <li>Aeronautical industry</li> <li>Building construction</li> <li>Civil engineering construction</li> <li>Shipbuilding</li> <li>Docks and harbours</li> </ul> |