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#### COVER NOTE

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From:	European Commission
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No. Cion doc.:	ANNEX to D062408/02
Subject:	COMMISSION DIRECTIVE (EU) .../... of XXX amending Annexes I, II and III to Council Directive 89/656/EEC as regards purely technical adjustments - ANNEX

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Delegations will find attached document ANNEX to D62408/02.

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Encl.: ANNEX to D62408/02.



(2) Annex II to Directive 89/656/EEC is replaced by the following:

*“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<sup>1</sup>***

- 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)

***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"

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<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.

(3) Annex III to Directive 89/656/EEC is replaced by the following:

“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 Type of PPE	Examples of activities where the use of the corresponding type of PPE may be necessary (*)	Industry and Sectors
<b>PHYSICAL - MECHANICAL</b>			
Impact caused by falling or ejected objects, collision with an obstacle and high-pressure jets	Cranium <b>Protective helmet</b>	<ul style="list-style-type: none"> <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 bolt-driving tools</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 style="list-style-type: none"> <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>
	Eyes and/or face <b>Spectacles, goggles and face shields</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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 industries</li> <li>- Metal and Wood industries</li> <li>- Stone carving</li> <li>- Gardening</li> <li>- Healthcare</li> <li>- Forestry</li> </ul>
	Foot and leg (parts) <b>Footwear (shoes/boots, etc.) with safety or protective toecap</b>  <b>Footwear with metatarsal protection</b>	<ul style="list-style-type: none"> <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</li> </ul>	<ul style="list-style-type: none"> <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> </ul>

Risks	Body part affected Type of PPE	Examples of activities where the use of the corresponding type of PPE may be necessary (*)	Industry and Sectors
		packaging – Flat glass products and container glassware manufacture, working and processing – Conversion and maintenance work – Forest works – Work with concrete and prefabricated parts involving formwork erection and stripping – Work in contractors' yards and warehouses – Roof work – 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 – Furnace construction, heating and ventilation installation and metal assembly work – Work with blast furnaces, direct reduction plants, steelworks, rolling mills, metal works, forging, drop forging, hot pressing and drawing plants – Work in quarries and open diggings, coal stock removal – Work with moulds in the ceramics industry – Lining of kilns in the ceramics industry Railway shunting work	– Slaughterhouses – Logistic Companies – Manufacturing Industry – Glass Industry – Forest Industry
<b>Falls due to slipping</b>	Foot <b>Slip-resistant footwear</b>	– Works on slippery surfaces – Works on humidity environments	– Building construction – Civil engineering construction – Shipbuilding – Slaughterhouse – Cleaning – Food industries – Gardening – Fishing industry
<b>Falls from a height</b>	Whole body <b>PPE designed to prevent or arrest falls from height</b>	– Work on scaffolding – Assembly of prefabricated parts – Works on masts – Roof work – Work on vertical or slope surfaces – Work in high crane cabs – Work in high cabs of warehouse stacking and retrieval equipment – Work in high sections of drilling towers – Work in shafts and sewers	– Building construction – Civil engineering construction – Shipbuilding – Infrastructure maintenance
<b>Vibration</b>	Hands <b>Protective Gloves</b>	– Works with hand-guided tools	– Manufacturing industries – Building work – Civil Engineering work
<b>Static compression of parts of the body</b>	Knee (leg parts) <b>Kneepads</b>	– Installation of blocks, tiles and pavers on the floor	– Building construction – Civil engineering construction
	Foot <b>Footwear with toecaps</b>	– Demolitions – Load handling	– Building construction – Civil engineering construction – Transport and storage – Maintenance
<b>Mechanical injuries (abrasion, perforation, cuts, bites, wounds or stabs)</b>	Eyes and/or face <b>Spectacles, goggles, face shields</b>	– Works with hand-guided tools – Welding and forging – Grinding and separating work – Chiselling – Rock working and processing – Work on stock removing machines for small chippings – Drop forging – The removal and breaking up of fragments – Spraying of abrasive substances – Use of brush cutter or chainsaw	– Building construction – Civil engineering construction – Shipbuilding – Mining works – Energy production – Infrastructure maintenance – Iron and Steel industries – Metal and Wood industries – Stone carving – Gardening – Forestry
	Hands <b>Mechanical protective gloves</b>	– Works with steel framework – Handling of sharp-edged objects, other than machines where there is a danger of the gloves being caught – Regular cutting using a hand knife for production and slaughtering – Changing the knives of cutting machines – Forest works – Gardening work	– Building construction – Civil engineering construction – Shipbuilding – Infrastructure maintenance – Manufacturing industries – Food industry – Slaughter – Forest industry
	Forearms <b>Arm protection</b>	– Boning and cutting	– Food industry – Slaughter
	Trunk/Abdomen/Leg <b>Protective apron, gaiters</b>  <b>Penetration resistance trousers (cut-resistant trousers)</b>	– Regular cutting using a hand knife for production and slaughtering – Forest works	– Food industry – Slaughter – Forest industry

<b>Risks</b>	<b>Body part affected Type of PPE</b>	<b>Examples of activities where the use of the corresponding type of PPE may be necessary (*)</b>	<b>Industry and Sectors</b>
	Foot <b>Penetration resistance footwear</b>	<ul style="list-style-type: none"> <li>- Carcase works and road works</li> <li>- Demolition</li> <li>- Formwork's erection and stripping</li> <li>- Forest works</li> </ul>	<ul style="list-style-type: none"> <li>- Building construction</li> <li>- Civil engineering construction</li> <li>- Shipbuilding</li> <li>- Mining works</li> <li>- Forest industry</li> </ul>
<b>Entanglement and trapping</b>	Whole body <b>Protective clothing for use where there is a risk of entanglement with moving parts</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>- Machine building</li> <li>- Manufacture of heavy-duty machines</li> <li>- Engineering</li> <li>- Construction</li> <li>- Agriculture</li> </ul>
<b>PHYSICAL - NOISE</b>			
<b>Noise</b>	Ears <b>Hearing protectors</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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>
<b>PHYSICAL - THERMAL</b>			
<b>Heat and/or fire</b>	Face/Whole head <b>Welding headshields, helmets / caps against heat or fire, protective hoods against heat and/or flame</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>- Iron and Steel Industry</li> <li>- Metal Industry</li> <li>- Maintenance services</li> <li>- Manufacturing Industry</li> </ul>
	Trunk/abdomen/legs <b>Protective apron, gaiters</b>	<ul style="list-style-type: none"> <li>- Welding and forging</li> <li>- Casting</li> </ul>	<ul style="list-style-type: none"> <li>- Iron and Steel Industry</li> <li>- Metal Industry</li> <li>- Maintenance services</li> <li>- Manufacturing industry</li> </ul>
	Hand <b>Protective gloves against heat and/or flame</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>- Iron and Steel Industry</li> <li>- Metal Industry</li> <li>- Maintenance services</li> <li>- Manufacturing industry</li> </ul>
	Forearms <b>Sleeves</b>	<ul style="list-style-type: none"> <li>- Welding and forging</li> <li>- Work with or in the vicinity of molten substances</li> </ul>	<ul style="list-style-type: none"> <li>- Iron and Steel Industry</li> <li>- Metal Industry</li> <li>- Maintenance services</li> <li>- Manufacturing industry</li> </ul>
	Foot <b>Footwear against heat and/or flame</b>	<ul style="list-style-type: none"> <li>- Work with or in the vicinity of molten substances</li> </ul>	<ul style="list-style-type: none"> <li>- Iron and Steel Industry</li> <li>- Metal Industry</li> <li>- Maintenance services</li> <li>- Manufacturing industry</li> </ul>
	Whole/partial body <b>Protective clothing against heat and/or flame</b>	<ul style="list-style-type: none"> <li>- Work in presence of high temperatures, radiating heat or fire</li> </ul>	<ul style="list-style-type: none"> <li>- Iron and Steel Industry</li> <li>- Metal Industry</li> <li>- Forest Industry</li> </ul>
<b>Cold</b>	Hand <b>Protective gloves against cold</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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> </ul>
	Foot <b>Footwear against cold</b>		
Whole/partial body including head <b>Protective clothing against cold</b>	<ul style="list-style-type: none"> <li>- Work in the open air in cold weather conditions</li> <li>- Work in deep-freeze rooms</li> </ul>	<ul style="list-style-type: none"> <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>	
<b>PHYSICAL - ELECTRICAL</b>			
<b>Electric shock (direct or indirect contact)</b>	Whole head <b>Electrically insulating helmets</b>		
	Hands <b>Electrically insulating gloves</b>		
	Foot <b>Electrically insulating footwear</b>	<ul style="list-style-type: none"> <li>- Live working or close to live parts under electrical tension</li> <li>- Work on electrical system</li> </ul>	<ul style="list-style-type: none"> <li>- Energy production</li> <li>- Transmission and distribution of electrical energy</li> <li>- Industrial facilities maintenance</li> <li>- Building construction</li> <li>- Civil engineering construction</li> </ul>
	Whole body/Hands/Foot <b>Conductive PPE intended to be worn by skilled persons during</b>		

Risks	Body part affected Type of PPE	Examples of activities where the use of the corresponding type of PPE may be necessary (*)	Industry and Sectors
	<b>live working at a nominal power system voltage up to 800 kV AC and 600 kV DC</b>		
<b>Static electricity</b>	Hands <b>Antistatic gloves</b>  Foot <b>Antistatic/conductive footwear</b>  Whole body <b>Antistatic clothing</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>- Manufacturing industry</li> <li>- Feed industry</li> <li>- Bagging and packing plants</li> <li>- Production, storage or transport of explosives</li> </ul>

### PHYSICAL - RADIATION

<b>Non-ionizing radiation, including sunlight (other than direct observation)</b>	Head <b>Caps and helmets</b>	<ul style="list-style-type: none"> <li>- Work in open air</li> </ul>	<ul style="list-style-type: none"> <li>- Fishing and agriculture</li> <li>- Building construction</li> <li>- Civil engineering construction</li> </ul>
	Eyes <b>Protective spectacles, goggles and face shields</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>- Iron and Steel Industries</li> <li>- Manufacturing industry</li> <li>- Fishing and agriculture</li> </ul>
	Whole body (skin) <b>PPE against Natural and artificial UV</b>	<ul style="list-style-type: none"> <li>- Work in the open air</li> <li>- Electrical welding</li> <li>- Germicidal lamps</li> <li>- Xenon lamps</li> </ul>	<ul style="list-style-type: none"> <li>- Building construction</li> <li>- Civil engineering construction</li> <li>- Shipbuilding</li> <li>- Mining works</li> <li>- Energy production</li> <li>- Infrastructure maintenance</li> <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>
<b>Ionizing radiation</b>	Eyes <b>Protective spectacles/goggles against ionizing radiation</b>  Hands <b>Protective gloves against ionizing radiation</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>- Healthcare</li> <li>- Veterinary care</li> <li>- Radioactive waste plant</li> <li>- Energy production</li> </ul>
	Trunk/abdomen/partial body <b>Protective apron against x-rays /Coat/Vest/Skirt against x-rays</b>	<ul style="list-style-type: none"> <li>- Operating in X-ray facilities</li> <li>- Operating in the area of medical radio diagnosis</li> </ul>	<ul style="list-style-type: none"> <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 <b>Headwear &amp; Caps PPE for protection against e.g. development of brain tumors</b>	<ul style="list-style-type: none"> <li>- Medical X-ray work places and facilities</li> </ul>	<ul style="list-style-type: none"> <li>- Healthcare</li> <li>- Veterinary care</li> <li>- Dental care</li> <li>- Urology</li> <li>- Surgery</li> <li>- Interventional radiology</li> </ul>
	Partial body <b>PPE for thyroid protection PPE for gonads protection</b>	<ul style="list-style-type: none"> <li>- Operating in X-ray facilities</li> <li>- Operating in the area of medical radio diagnosis</li> </ul>	<ul style="list-style-type: none"> <li>- Healthcare</li> <li>- Veterinary care</li> </ul>
	Whole body <b>Protective clothing against ionizing radiation</b>	<ul style="list-style-type: none"> <li>- Operating in the area of medical radio diagnosis</li> <li>- Work with radioactive products</li> </ul>	<ul style="list-style-type: none"> <li>- Energy production</li> <li>- Radioactive waste plant</li> </ul>

## II. CHEMICAL RISKS (including nanomaterial)

Risks	Body part affected Type of PPE	Examples of activities where the use of the corresponding type of PPE may be necessary (*)	Industry and Sectors
<b>CHEMICAL - AEROSOLS</b>			



Risks	Body part affected Type of PPE	Examples of activities where the use of the corresponding type of PPE may be necessary (*)	Industry and Sectors
<b>Solid (dusts, fumes, smokes, fibres, and nano-material)</b>	Respiratory system <b>Respiratory protective devices against particles</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>- Building construction</li> <li>- Civil engineering construction</li> <li>- Shipbuilding</li> <li>- Mining works</li> <li>- Iron and Steel industries</li> <li>- Metal and Wood industries</li> <li>- Automotive industry</li> <li>- Stone carving</li> <li>- Pharmaceuticals industry</li> <li>- Healthcare services</li> <li>- Preparation of cytostatics</li> </ul>
	Hands <b>Chemical Protective gloves and barrier cream as an additional/accessory protection</b>	<ul style="list-style-type: none"> <li>- Work in presence of asbestos</li> <li>- Use of materials consisting of/containing nanoparticles</li> </ul>	<ul style="list-style-type: none"> <li>- Building construction</li> <li>- Civil engineering construction</li> <li>- Shipbuilding</li> <li>- Industrial facilities maintenance</li> </ul>
	Whole body <b>Protective clothing against solid particles</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>- Building construction</li> <li>- Civil engineering construction</li> <li>- Shipbuilding</li> <li>- Industrial facilities maintenance</li> <li>- Agriculture</li> </ul>
	Eyes <b>Spectacles/goggles and face shields</b>	<ul style="list-style-type: none"> <li>- Woodworking</li> <li>- Road work</li> </ul>	<ul style="list-style-type: none"> <li>- Mining industry</li> <li>- Metal and wood industry</li> <li>- Civil engineering construction</li> </ul>
<b>Liquid (mists and fogs)</b>	Respiratory system <b>Respiratory protective devices against particles</b>	<ul style="list-style-type: none"> <li>- Surface treatment (e.g. varnishing/painting, abrasive blasting)</li> <li>- Surface cleaning</li> </ul>	<ul style="list-style-type: none"> <li>- Metal Industry</li> <li>- Manufacturing Industry</li> <li>- Automotive sector</li> </ul>
	Hands <b>Chemical protective gloves</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>- Metal Industry</li> <li>- Manufacturing industry</li> <li>- Automotive sector</li> </ul>
	Whole body <b>Chemical protective clothing</b>	<ul style="list-style-type: none"> <li>- Surface treatment</li> <li>- Surface cleaning</li> </ul>	<ul style="list-style-type: none"> <li>- Metal Industry</li> <li>- Manufacturing industry</li> <li>- Automotive sector</li> </ul>
<b>CHEMICAL - LIQUIDS</b>			
<b>Immersion Splashes, sprays and jets</b>	Hands <b>Chemical protective gloves,</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>- Textile and clothing industry</li> <li>- Cleaning industry</li> <li>- Automobile industry</li> <li>- Beauty and hairdressing sectors</li> </ul>
	Forearms <b>Chemical protective sleeves</b>	<ul style="list-style-type: none"> <li>- Works with acids and caustic solutions, disinfectants and corrosive cleaning products</li> </ul>	<ul style="list-style-type: none"> <li>- Cleaning</li> <li>- Chemical industry</li> <li>- Cleaning industry</li> <li>- Automobile industry</li> </ul>
	Foot <b>Chemical protective boots</b>	<ul style="list-style-type: none"> <li>- Work with liquid sprays</li> <li>- Works with acids and caustic solutions, disinfectants and corrosive cleaning products</li> </ul>	<ul style="list-style-type: none"> <li>- Textile and clothing industry</li> <li>- Cleaning industry</li> <li>- Automobile industry</li> </ul>
	Whole body <b>Chemical protective clothing</b>	<ul style="list-style-type: none"> <li>- Work with liquid sprays</li> <li>- Works with acids and caustic solutions, disinfectants and corrosive cleaning products</li> </ul>	<ul style="list-style-type: none"> <li>- Cleaning</li> <li>- Chemical industry</li> <li>- Cleaning industry</li> <li>- Automobile industry</li> <li>- Agriculture</li> </ul>
<b>CHEMICAL - GASES AND VAPOURS</b>			
<b>Gases and vapours</b>	Respiratory system <b>Respiratory protective devices against gases</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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>

Risks	Body part affected Type of PPE	Examples of activities where the use of the corresponding type of PPE may be necessary (*)	Industry and Sectors
	Hands <b>Chemical protective gloves</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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 <b>Chemical protective clothing</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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 <b>Spectacles, goggles and face shields</b>	<ul style="list-style-type: none"> <li>- Spray painting</li> <li>- Woodworking</li> <li>- Mining operations</li> </ul>	<ul style="list-style-type: none"> <li>- Automotive sector</li> <li>- Manufacturing industry</li> <li>- Mine industry</li> <li>- Chemical Industry</li> <li>- Petrochemical industry</li> </ul>

### III. BIOLOGICAL AGENTS

Risks	Body part affected Type of PPE	Examples of activities where the use of the corresponding type of PPE may be necessary (*)	Industry and Sectors
<b>BIOLOGICAL AGENTS (contained in) - AEROSOLS</b>			
<b>Solids and liquids</b>	Respiratory system <b>Respiratory protective devices against particles</b>	<ul style="list-style-type: none"> <li>- Work that involve contact with human body and animal fluids and tissues</li> <li>- Work in presence of biological agent</li> </ul>	<ul style="list-style-type: none"> <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 <b>Protective gloves against microorganisms</b>	<ul style="list-style-type: none"> <li>- Work that involve contact with human body and animal fluids and tissues</li> <li>- Work in presence of biological agent</li> </ul>	<ul style="list-style-type: none"> <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/partial body <b>Protective clothing against biological agents</b>		
	Eyes and/or face <b>Protective spectacles, goggles and face shields</b>		
<b>BIOLOGICAL AGENTS (contained in) - LIQUIDS</b>			
<b>Direct and indirect contact</b>	Hands <b>Protective gloves against microorganisms</b>	<ul style="list-style-type: none"> <li>- Work that involve contact with human body and animal fluids and tissues (bites, stings)</li> <li>- Work in presence of biological agent</li> </ul>	<ul style="list-style-type: none"> <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>
	Whole/partial body <b>Protective clothing against biological agents</b>		
	Eyes and/or face <b>Protective goggles and face shields</b>		
<b>Splashes, sprays and jets</b>	Hands <b>Protective gloves against microorganisms</b>	<ul style="list-style-type: none"> <li>- Work that involve contact with human body and animal fluids and tissues</li> <li>- Work in presence of biological agent</li> </ul>	<ul style="list-style-type: none"> <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	Body part affected Type of PPE	Examples of activities where the use of the corresponding type of PPE may be necessary (*)	Industry and Sectors
	Forearms <b>Protective sleeves against microorganisms</b>	<ul style="list-style-type: none"> <li>– Work that involve contact with human body and animal fluids and tissues</li> <li>– Work in presence of biological agent</li> </ul>	<ul style="list-style-type: none"> <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>
	Foot/legs <b>Protective over boots and gaiters</b>	<ul style="list-style-type: none"> <li>– Work that involve contact with human body and animal fluids and tissues</li> <li>– Work in presence of biological agent</li> </ul>	<ul style="list-style-type: none"> <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 <b>Protective clothing against biological agents</b>	<ul style="list-style-type: none"> <li>– Work that involve contact with human body and animal fluids and tissues</li> <li>– Work in presence of biological agent</li> </ul>	<ul style="list-style-type: none"> <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>
<b>BIOLOGICAL AGENTS (contained in) – MATERIALS, PERSONS, ANIMALS, ETC.</b>			
<b>Direct and indirect contact</b>	Hands <b>Protective gloves against microorganisms</b>  Whole/partial body <b>Protective clothing against biological agents</b>  Eyes and/or face <b>Protective goggles and face shields</b>	<ul style="list-style-type: none"> <li>– Work that involve contact with human body and animal fluids and tissues (bites, stings)</li> <li>– Work in presence of biological agent</li> </ul>	<ul style="list-style-type: none"> <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 Type of PPE	Examples of activities where the use of the corresponding type of PPE may be necessary (*)	Industry and Sectors
<b>Non-visibility</b>	Whole body <b>PPE for signalling the user's presence visually</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>– Building construction</li> <li>– Civil engineering construction</li> <li>– Shipbuilding</li> <li>– Mining works</li> <li>– Transport services and passengers transports</li> </ul>
<b>Oxygen deficiency</b>	Respiratory system <b>Insulating respiratory protectives devices</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>– Alcoholic drinks production</li> <li>– Civil engineering construction</li> <li>– Chemical Industry</li> <li>– Petrochemical industry</li> </ul>
	Respiratory system <b>Diving equipment</b>	<ul style="list-style-type: none"> <li>– Underwater works</li> </ul>	<ul style="list-style-type: none"> <li>– Civil engineering construction</li> </ul>
<b>Drowning</b>	Whole body <b>Life jacket</b>	<ul style="list-style-type: none"> <li>– Work on or near water</li> <li>– Work in the sea</li> <li>– Work in an airplane</li> </ul>	<ul style="list-style-type: none"> <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>