



In the area of food production, a lot of attention is paid to food safety. But it is important not to lose sight of worker safety.

Food production is no different from a manufacturing workshop. There are numerous similar risks, some of which are exacerbated by the addition of food products and/or the precautions taken to make these products safe for consumption. Here are a few examples of these risks.

Summary

Line operator	p.8
Nutrition engineers	p.10
Production operator	p.12
Health supervisor	p.14
Packaging agent	p.16
Delivery driver	p.18
Refrigeration expert	p.20
Electrical mechanic	p.22
Maintenance agent	p.24

Falls to the ground

Slip and trip hazards exist in almost all workplaces. For example, handling food often results in puddles of sticky or slippery substances on the floor. Ensuring that regular cleaning is carried out is important, but not enough. Workers must wear shoes that are adapted to these conditions.

The use of a S4 SRC safety boot provides the highest level of slip resistance. The boots designed for the food industry have an angled sole design, maximising the boot's grip on wet or greasy surfaces. In some cases, where slipping is a major risk (e.g., dairies, fish shops), you can opt for a flat, granular sole that provides greater slip resistance.

EN ISO 20345: The standard covers the fundamental and additional requirements of safety footwear. What does the standard say about slip resistance?

The glide performance of the sole is represented by the SRA, SRB and SRC tests.

SRA: Test on ceramic tile floor with the addition of sodium lauryl sulphate (NaLS), which can be considered to be a detergent or household product.

SRB: Test on a steel floor with the addition of glycerin which can be considered as oil

The SRA and SRB tests are performed by tilting the shoe at an angle of 7° and then subjecting it to a force of 500 N, with the addition of sodium lauryl sulphate (SRA) or glycerol (SRB). **The SRA + SRB levels must be validated to obtain the SRC performance level.**

Requirements for SRA:

- Forward sliding of the heel must be: ≥ 0.28
- Forward sliding on flat surface must be: ≥ 0.32

Requirements for SRB:

- Forward sliding of the heel must be: ≥ 0.13
- Forward sliding on flat surface must be: ≥ 0.18



The use of a **S4 SRC safety boot** provides the highest level of slip resistance.

Harmful substances

Many harmful substances can be used in food production.

Protection against hazardous chemicals starts by educating and training professionals. Make sure that MSDSs are available to staff and that they have been trained in the risks of the chemicals used in the workspace, so that they are aware of the PPE to wear.

Different types of respiratory protections exist, and it is important to identify the risks in order to have the right protection.

A disposable FFP1/2 or 3 mask may be sufficient in some situations. In others, you will need more complete protection such as a full-face mask with cartridge filter. It will be necessary to identify the chemicals used in order to have the right protective filters.

EN149: Filtering half-masks

Impact, cleaning and disinfection, temperature, flame and breathing resistance tests.

Non-toxic dusts and/or water-based aerosols.

2 Solid and/or liquid aerosols with low toxicity or irritation.

P3 Toxic solid and/or liquid aerosols.

EN140: reusable half-mask EN136: reusable full mask



The use of a **FFP3 mask** protects against solid and/or liquid aerosols indicated as toxic.

Dangerous noise

Machines tend to be noisy. It is important that you assess the noise risks in your facility and choose the best protection considering the intensity and duration of exposure. The protection must bring the noise to a level that is not harmful to the worker's health while avoiding overprotection that would cut him off from his environment.

- ▶ Blue hearing protection (food industry) is easy to detect
- ► Metallically charged earplugs make them detectable electromagnetically or by x-ray.
- ► A cord is used to avoid losing the protections. It should also be detectable.

EN352-1: Farmuffs EN352-2: Earplugs.

EN352-3: Earmuffs mounted on construction helmets.

Requirements for construction, design, performance and test methods. Prescribe the provision of information on the features

Requirements of Directive 2003/10/EC: Minimum requirements for the protection of workers from risks related to 8 hours of exposure to noise.

at \geq 85 dB(A). Hearing protection mandatory at \geq 80 dB(A) and < 85dB(A): Hearing protection at the worker's disposal

at > 75 dB(A) and < 80 dB(A): Hearing protection recommended



The use of a **detectable**, blue coloured noise canceller with cord ensures optimum protection for the food industry.

Projections risks (eyes / face)

Goggles are intended to protect the eyes from external influences such as splinters, dust and radiation.

Mechanical risk arises from the projection of abrasive particles or clouds of dust. Chemical risk is related to the projection of irritating, toxic or harmful powders, aerosols, liquids, gases or vapours that react with the components of the eye. Biological risk is induced by the penetration of viral, bacterial or fungal particles, with the risk of contamination.

EN166: eye protection/applies to all types of personal eye protectors against hazards that can damage the eye except nuclear radiation, x-rays, laser emissions and IR emitted by low temperature sources. Does not apply to eye protectors, which have separate



Thermal risks

EN 407 standard gloves are designed to protect against thermal risks such as fire, contact heat, convective heat, radiant heat, molten metal splashes, etc.

Nevertheless, EN 407 gloves are often used in the food industry to protect against contact heat when handling products coming out of an oven, for example.



EN407: Contact heat. This test consists of measuring the temperature at which the internal temperature of the glove increases. The heat source is between 100 and 500°C and the internal temperature of the glove should not normally exceed 10°C during the first 15 seconds of exposure. Protection index from 0 to 4.



Mechanical & cutting risks

Blades are quite common in a food processing plant, which indicates that protection against lacerations is also common.

Hand injuries are among the most common in the professional world. This holds even more true in the food industry, where the risk of cuts is even greater than anywhere else: whether it is when cutting vegetables, slicing meat, cleaning cutting machines, sharpening blades, etc.



EN388: 2016: Applies to gloves for protection against mechanical risks and includes tests to assess the resistance of textiles and leathers:

- · Abrasion resistance
- Coupe Test Cut resistance
- Tear resistance
- Puncture resistance



Cut-resistant gloves are standardised from B to F and can be combined with a cuff to suit the intended use.

Food contamination

Any worker who comes into contact with factories and/ or handles food must wear protective clothing that keeps their clothes clean and prevents cross-contamination of the environment. This means that the carriers remain clean, and the food handled is not contaminated.

It is mandatory to wear gloves approved for food contact \mathbb{R}^n . Just like wearing a hairnet to prevent, for example, a strand from falling into a preparation and infecting it completely.

The risk of food contamination requires a boot without any rough edges, to facilitate washing and removal of organic deposits. The sole must have tunnels for draining liquids and solids, to allow for optimal washing and maintaining glide performance.



Food compatibility is governed by **Regulation (EC) No 1935/2004** of the European Parliament and of the Council of 27 October 2004 on materials and articles intended to come into contact with food.



Cold-related risks

Cold stores, cold rooms, outdoor work in winter, etc. Many professional situations expose employees to natural or artificial cold. This direct exposure to cold poses health risks to workers. It also leads to the occurrence of accidents. Vigilance is required when the ambient temperature is below 5°C. The most effective prevention is to avoid or limit the time spent working in the cold.

The ideal solution to protect yourself from the cold is to multiply the layers of clothing to improve thermal insulation thanks to the air trapped in and between each layer.

Three layers are a minimum: an undergarment to wick away perspiration, a fleece layer to insulate against the cold and a long, padded parka to protect against the cold.

Gloves meeting the EN511 standard are intended for use in the food industry for handling frozen products, dry and nonsterilised foods in a cold or refrigerated environment, or simply handling in cold environments.



EN511: Applies to work gloves to be used in cold environments that undergo three tests to be considered compliant with this standard:

- Resistance to convective cold
- · Resistance to contact cold
- Waterproof

EN342: Requirements and test methods for the performance of garments for protection against cold at temperatures below - 5°C (refrigeration/extreme cold).

- 3 tests are carried out
- \bullet Mannequin: recommended wearing time depending on temperature and activity level of the wearer.
- · Air permeability: windshield.
- Resistance to water penetration: waterproof.

EN14058: Performance requirements and test methods for garments (waistcoats, jackets, coats, trousers) for protection against cool climates (use at moderately low temperature, -5°C and below, to protect against local skin cooling). Used for outdoor activities, for example in the construction industry, the garments can also be used for indoor activities, for example in the food industry. In this case, it is not always necessary to have waterproof or watertight garments.







The use of products that meet EN511 standards (gloves), EN342 or EN14058 (garments) and EN ISO 20345 CI (footwear) guaranteeing

protection against cold.





Electrical risks

Industrial machines need electrical power to operate, so you need to consider electrical risks in your prevention procedures. Inspections of wiring, protection of live parts, earthing of equipment and blocking and interlocking procedures should all be considered in a food production plant.

One of the major risks is the electric arc, which injures through impact of explosion and burns through very high temperature rise. Suitable clothing in accordance with standard 11682 combined with head, face and hand protection is essential when working on an electric meter, in particular. Specific footwear may be required against electrical hazards.



GS-ET 29: Requirements, performance, test methods for face shields providing protection against electric arc.

EN50365: Electrically insulating helmets for use on or near installations under voltage not exceeding 1000 VAC or 1500 VDC (electrical class 0)..

EN16350: Electrostatic properties for protective gloves

Concerns the requirements for gloves used in explosive areas (ATEX).

EN ISO 61340-5-1: General requirements for ESD protection of footwear.

Test methods used to determine the electrical resistance of footwear used for monitoring the electrostatic potential of the wearer at the workplace.









A **combination of different types of protection** may be required to provide adequate protection for the user.

Although this list of hazards you might encounter in the food industry is far from exhaustive, it gives you a good starting point for your risk analysis and the implementation of appropriate PPE.

Production

Line operator





Round mobcap. Non-woven polypropylene 10 g/m². Elasticated border. 53 cm in diameter. Dispenser box of 100 pieces.

HELIUM2 DETECTABLE



Ultra light polycarbonate single lens glasses. Integrated polycarbonate nose piece. Thin and flexible frame. Suitable for long duration wear.

C € EN166 EN170 (ANSI ANSI-ISEA 287.1 287+ U6 L1.3

M1205V



Box of 10 non woven synthetic fibre disposable masks FFP2. Mask with 4 foldable parts suitable for all faces. Nose clip for adjustment. Foam edge under nose clip. High performance exhalation valve. Hygienic individual plastic bag. DOLOMIA optional test for longer continuous wear time.



CONICDE010



Bag of 10 pairs of detectable polyurethane earplugs with detectable plastic cord. Brass and iron inserts, suitable for food industry. (9 pairs in bag + 1 pair in storage plastic box).

EN352-2 SNR 36dB H 34 M 34 L 31 Ø 7-12 mm

ANSI

ANSI S3.19 NRR 33 dB

BLOUSPO



Coat. Non-woven polypropylene 30 g/m². Fastening with 4 press studs. Shirt collar. Made-up sleeves. 2 patched low pockets. Suitable for food industry. Individual pack.

V1450B100



Powder-free nitrile. Suitable for food industry. AQL 1,5. Box of 100 disposable gloves.









AEROFOOD S4 SRC



 $\label{thm:continuous} \mbox{Upper: specific Aerofit PU formula. Lining: thin}$ elasticated polyester jersey. Insock: PU, 2 layers, preformed and removable. Protective toe cap: stainless steel. Sole: specific Aerofit PU formula.

C € EN ISO 20345 **S4 CI SRC**

Additional solutions











Production

Nutrition engineer





Chin/beard protector. Non-woven polypropylene 10 g/m². Elasticated for a good fit. Dispenser box of 100 pieces.

HEKLA2



Single lens polycarbonate over glasses. Side shields. Integrated polycarbonate nose piece. Flexible polycarbonate arms. Suitable for all types of prescription glasses.

C E EN166 EN170 ANSI-ISEA Z87.1 Z87+ U6

M1305V



Box of 10 non woven synthetic fibre disposable masks FFP3. Mask with 4 foldable parts suitable for all faces. Nose clip for adjustment. Foam edge under nose clip. High performance exhalation valve. Hygienic individual plastic bag. DOLOMIA optional test for longer continuous wear time.



CONICFIRDE010



Bag of 10 pairs of detectable and reusable TPR earplugs with plastic cord. Iron and brass inserts, suitable for food industry. Can be used with or without cord (9 pairs in bag + 1 pair in storage plastic box).

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EN352-2 SNR 34dB H 33 M 32 L 31 Ø 8-12 mm



ANSI S3.19 NRR 26 dB

VE830



Thin nitrile. Chlorinated smooth inside. Length: 33 cm. Thickness: 0,20 mm.













BLOUSPO



Coat. Non-woven polypropylene 30 g/m². Fastening with 4 press studs. Shirt collar. Made-up sleeves. 2 patched low pockets. Suitable for food industry. Individual pack.

TABPU



Apron. Elasticated strap with hook. Adjustment buckle on the waist. Dimensions: 115 cm x 90 cm. Thickness: 0,30 mm. 100% polyurethane 355 g/m².

PHYSIOMC OB SRA



Upper: PVC. Lining: Polyester. Sole: PVC.



Additional solutions

PO110



BALBI2



PITON2 **CLEAR**



CONICDE010



M6400 **CHEMKIT**



M1305VW



M1300SM15 SPIDERMASKP315



V1310



V1340



V1400B100



PO106









Control, analysis & laboratory Manufacturing operator





Round mobcap. Non-woven polypropylene 10 g/m². Elasticated border. 53 cm in diameter. Dispenser box of 100 pieces.

Dispenser box of 50 Type II disposable medical

ISO 22609 EN ISO 13485 **80mmHg**

face masks. Class 1 medical device. 3 pleats. Adjustable nose clip. Elastic ear loops. Non-woven

HELIUM2 DETECTABLE



Ultra light polycarbonate single lens glasses. Integrated polycarbonate nose piece. Thin and flexible frame. Suitable for long duration wear.

C E EN166 EN170 ANSI-ISEA Z87.1 Z87+ U6 L1.3

CONICFIRDE010



Bag of 10 pairs of detectable and reusable TPR earplugs with plastic cord. Iron and brass inserts. Can be used with or without cord (9 pairs in bag + 1 pair in storage plastic box).

SNR 34dB H 33 M 32 L 31 Ø 8-12 mm



ANSI \$3.19 NRR 26 dB

BLOUSPO

polypropylene.

C € EN14683 II * 98%

HM11001U



Coat. Non-woven polypropylene 30 g/m². Fastening with 4 press studs. Shirt collar. Made-up sleeves. 2 patched low pockets. Suitable for food industry. Individual pack.

V1400PB100



Powdered nitrile. Suitable for food industry. AQL 1,5. Box of 100 disposable gloves..

C € EN ISO 374-1 EN ISO 374-5







KEMIS S4 CI SRC



Upper: PVC. Lining: cotton jersey. Insock: Removable, washable and insulating. Rear removal lug. Protective toe cap: stainless steel. Sole: PVC - Nitrile.



Additional solutions

PO115

BALB₁₂





M1100VB

M1100

CONICDE010







VENICUTB00

VENICUT10

V1400B100







PO106



TABPU





SURCHPE



ORGANO S4 SRA



Control, analysis & laboratory Health inspector



ZIRCON1



UV-resistant high density polyethylene (HDPE) or polypropylene (PP) safety helmet. Low density (LDPE) polyethylene cradle with 8 fixing points. Sweat band. Manual adjustment: head sizes 53/63 cm. Electrical Insulation up to 1 000 V.A.C. or 1 500 V.D.C. Standard holes for accessories. Anchorage for chin straps with 2 or 4 points..

C € EN397 -10°C +50°C 440VAC





M1205V



Box of 10 non woven synthetic fibre disposable masks FFP2. Mask with 4 foldable parts suitable for all faces. Nose clip for adjustment. Foam edge under nose clip. High performance exhalation valve. Hygienic individual plastic bag. DOLOMIA optional test for longer continuous wear time.

C € EN149

V1400PB100



Powdered nitrile. Suitable for food industry. AQL 1,5. Box of 100 disposable gloves..











NITRIC SB FO SRC



Upper: PVC. Lining: Cotton jersey. Protection of the malleoli. Protective toe cap: stainless steel. Sole: PVC - Nitrile.

C E IN ISO 20345 SB FO SRC

HELIUM 2 DETECTABLE



Ultra light polycarbonate single lens glasses. Integrated polycarbonate nose piece. Thin and flexible frame. Suitable for long duration wear.

C € EN166 EN170 ANSI-ISEA Z87.1

CONICDE010



Bag of 10 pairs of detectable polyurethane earplugs with detectable plastic cord. Brass and iron inserts, suitable for food industry. (9 pairs in bag + 1 pair in storage plastic box).

EN352-2 SNR 36dB H 34 M 34 L 31 Ø 7-12 mm

(ANSI

ANSI \$3.19 NRR 33 dB

PO110



Round mobcap. Non-woven polypropylene 10 g/ m². Elasticated border. 53 cm in diameter. Dispenser

BLOUSPE



Coat for visitors. Polyethylene 18 μm . Fastening with 3 press studs. Shirt collar. Raglan sleeves. Dispenser box of 100 pieces.

Additional solutions





VISOR HOLDER









Packaging agent





Round mobcap. Non-woven polypropylene 10 g/m². Elasticated border. 53 cm in diameter. Dispenser box of 100 pieces.

M1105



Box of 20 non woven synthetic fibre disposable masks FFP1. Mask with 4 foldable parts suitable for all faces. Nose clip for adjustment. Foam edge under nose clip. Hygienic individual plastic bag. DOLOMIA optional test for longer continuous wear time.





IRAYA CLEAR



V1400B100



Powder-free nitrile. Suitable for food industry. AQL 1,5. Box of 100 disposable gloves.





Coat. Non-woven polypropylene 30 g/m². Fastening with 4 press studs. Shirt collar. Made-up sleeves. 2 patched low pockets. Suitable for food industry. Individual pack.



M2PA3STRF

C € EN ISO 374-1 EN ISO 374-5

TYPE B J K T



Woman's trousers. Adjusted cut. Elasticated waist on both sides. Preformed knees. 7 pockets including

Twill 63% polyester 34% cotton 3% elastane 260 g/m².

A woman's fitted stretch cut for for more freedom of movement

MIAMI S2 SRC



Upper: Microfibre/PU. Insock: Removable premolded - polyester on EVA. Midsole: Injected - Single density PU.

A water-resistant microfibre upper



EN ISO 20345 **S2 SRC**



Additional solutions

BRAVA2 CLEAR AB



INTERLAGOS LIGHT



CONICMOVE01



VENICUTCM1



VENICUTC05



VENICUT10



BALI



OLINO



GDOON





M6PAN



M2PA3STR





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Maintenance, engineering, work Refrigeration expert



JURA



Double thickness cap in acrylic knit.

NORDLAND



Parka. Waterproof seams. Removable hood. Collar with polar lining for optimal comfort. Fastening with double zip under press stud storm flap. Adjustable waist and bottom with elastic drawstring. 7 pockets. Polyurethane-coated Oxford polyester fabric. Quilted polyester Taffeta lining.

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ICEBERG



Warm Salopette. Waterproof seams. Adjustable waist with elastic drawstring. Adjustable braces. Preformed and reinforced knees. 5 pockets. Polyurethane-coated Oxford polyester fabric. Quilted polyester Taffeta lining..

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CONICO10



Bag of 10 pairs of disposable polyurethane earplugs. Individual plastic bag of 2 earplugs.

C E SNR 36dB H 34 M 34 L 31 Ø 7-12 mm

ANSI S3.19 NRR 33 dB

W736



Inside: 100% acrylic gauge 10. Outside: 100% polyamide gauge 15. Full latex coating of the hand. Second foam latex coating on palm and fingertips.







ESKIMO



Canadian safety boot. Upper: PU and Polyester. Lining: SNOWTEX™ fur-lined and DELTA-TEX™ waterproof polyester membrane + fur-lined polyester collar. Insock: Removable premolded - Felt. Outsole: Injected - Dual density PU resistant to -30°C. Amagnetic boot.

C EN ISO 20345 SBH P A E FO CI WR SRC

Additional solutions

QUARTZ UP IV



KAIZIO



HELIUM2 CLEAR

WINTERCAP



INTERLAGOS NB





INTERLAGOS



VV750



KOLDYTOP



KOLDYPANT





VERNON

VE728



JUMPER3 S3 HC



20

Maintenance, engineering, work Electrical mechanic



ONYX



ABS dual shell safety helmet with PC retractable visor. Sport and dynamic design. 3 textile straps with 6 fixing points. Foam sweat band. One-D Rotor clamping system: head size 53 to 63 cm. 2 possible positions of the headband (top/low) for a better comfort. Retro-reflective stickers. Electrical insulation up to 1 000 V.A.C. or 1 500 V.D.C, protection against arc fault (lass 1 (GS-ET 29). Visor with anti-Fog N and anti-scratch K treatments and protection against electrical arcs, and molten metals or hot liquids projections.

C € EN397 MM LD -20°C +50°C 440VAC

EN166 1 AT 8 9 KN 3 8 9 AT





MYSEN2



Softshell jacket with removable sleeves. Fastening with zip under storm flap. Bottom of sleeves with bias finishing, 5 pockets. Tissu «Softshell» 96% polyester

VV914



Para-aramid/Fibreglass/Modacrylic. Foam neopren coating on palm and fingertips. Gauge 10.



metallic footwear.





MEMPHIS S1P SRC ESD

Upper: Injected PU on mesh. Lining: Polyester. Insole: Removable premolded - Polyester on EVA. Outsole: Cemented - Phylon. Outsole: Rubber Nitrile. Non





M5PA2



Trousers. Elasticated waist on both sides. Preformed knees. 8 pockets including 1 ruler. Canvas 60% cotton 40% polyester 270 g/m². Yokes: polyamide and Oxford polyester.





Additional solutions

QUARTZ UP III



VISOR U



VISOR FLASH



M1200SM



GOTEBORG



M2PA3F



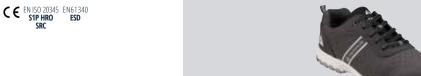
M5VE2





BOSTON S1P





Maintenance, engineering, work Maintenance agent



IRAYA CLEAR



Polycarbonate glasses. Sport design. Polycarbonate frame for better comfort and durability.

C E EN166 EN170 (ANSI-ISEA 787.1 2C-1.2 (ANSI-ISEA 787.1



M1205V



Box of 10 non woven synthetic fibre disposable masks FFP2. Mask with 4 foldable parts suitable for all faces. Nose dip for adjustment. Foam edge under nose dip. High performance exhalation valve. Hygienic individual plastic bag. DOLOMIA optional test for longer continuous wear time.

C € EN149

M2VE3



Jacket. Elasticated cuffs. Elasticated waist on both sides. 7 pockets including 1 inside. Twill 65% polyester 35% cotton 245 g/m².

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M2PA3STR



Trousers. Adjusted cut. Elasticated waist on both sides. Preformed knees. 7 pockets including 1 ruler.
Twill 63% polyester 34% cotton 3% elastane 260 g/m².

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INTERLAGOS NB



Ear defenders for wearing around the neck. Textile support strap. Metal arch and ABS cups, padded with synthetic foam.

EN352-1 SNR 28 dB H 33 M 26 L 15 S/M/L ϵ

VENICUTD06



DELTAnocut® high performance fibre. Nitrile microfoam coating on palm and fingertips. Gauge 18.











OLINO



Sweat. Shoulders and elbows reinforcement. Knitted cuffs and bottom of garment. 65% polyester 35% cotton fleece 260 g/m². Reinforcements : Polyurethane-coated Oxford polyester fabric.

JUMPER3 S3 SRC



Upper: Pigmented split leather, S3 water resistant treatment. Lining: Polyamide mesh. Insole: Removable premoided - Polyester on EVA. Outsole: Injected - Dual-density PU.

EN ISO 20345 \$3 \$RC

Additional solutions

DIAMOND VI KAIZIO



INTERLAGOS LIGHT HE



MAGNY HELMET2



VISOR TORIC VISOR HOLDER



SPIDERMASKP2W M1200VW







VENICUTB05



ASO2 CLEAR



W914 VENICUTB07



VENICUTD05



GO-SPECS TEC CLEAR



BRIGHTON2



DT115 DT115CV



M2PA3STR

M2PA3STRF



SURCHPO













