

# Safety and health at work is everyone's concern

It's good for you  
It's good for business



## Risk Assessment Tool



Managing risk  
Protecting health  
Improving business

A better workplace for all



European Agency  
for Safety and Health  
at Work







# **Safety and health at work is everyone's concern**

**It's good for you  
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**Information:** <http://hwi.osha.europa.eu>



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**More sector-specific checklists available at: <http://hwi.osha.europa.eu>**



## PART I: BASIC INFORMATION

### What is a hazard? What is a risk?

A hazard is anything that has the potential to cause harm. Hazards can affect people, property, processes; they can cause accidents and ill-health, loss of output, damage to machinery, etc.

Occupational risk refers to the likelihood and the severity of an injury or an illness occurring as a result of exposure to a hazard.

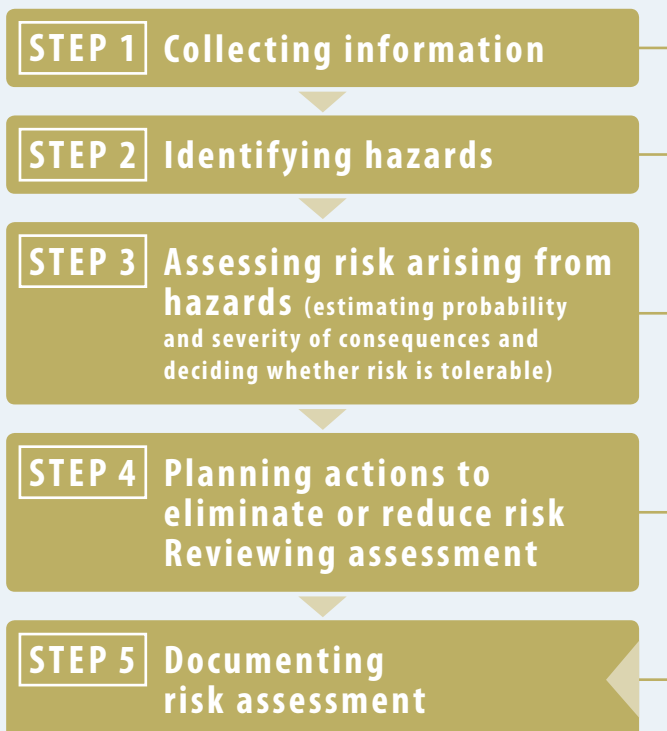
### Why/how should I carry out a risk assessment?

The main aim of occupational risk assessment is to protect workers' health and safety. Risk assessment helps to minimise the possibility of the workers or the environment being harmed due to work-related activities. It also helps to keep your business competitive and effective.

Under health and safety laws, all employers must carry out regular risk assessment.

### How can I carry out a risk assessment?

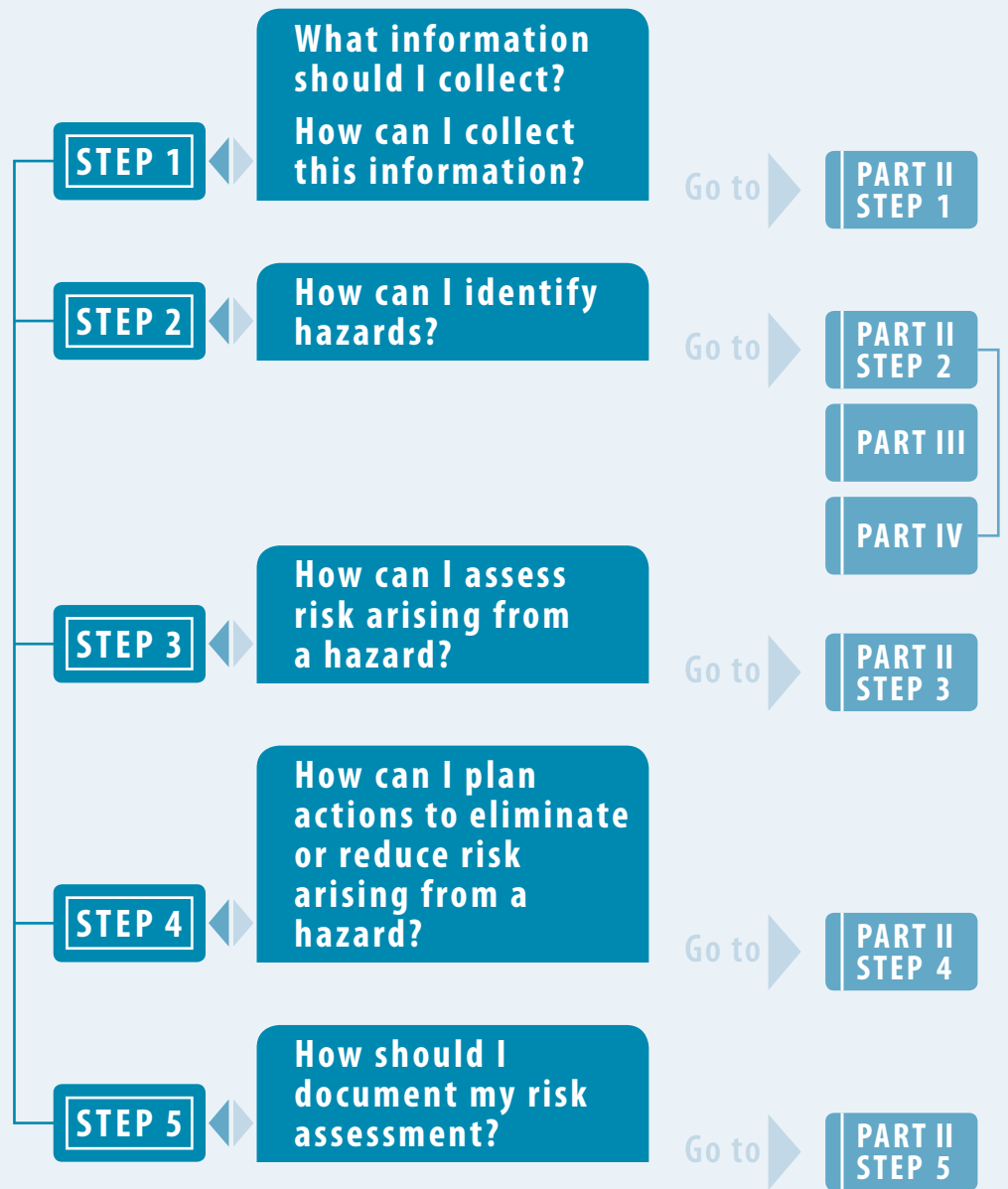
Workplace risk can be assessed in 5 simple steps, as presented below.





**THIS TOOL WILL HELP YOU TO GO THROUGH ALL THE STEPS,  
AND TO CARRY OUT AND DOCUMENT YOUR RISK ASSESSMENT**

How should I use this tool?





## PART II: RISK ASSESSMENT – GENERAL

### STEP 1

#### What information should I collect?

To assess occupational risk at the workplace you need to know:

- where the workplace and/or the jobs performed are located;
- who works there: pay particular attention to those for whom occupational hazard may be more severe than usual, such as pregnant women, young workers or workers with disabilities. Remember also about part-time workers, subcontractors and visitors, and employees who work off-site (including drivers, those visiting clients' or customers' homes, etc.);
- what work equipment, materials, and processes are used;
- what tasks are performed (e. g., in what way and for how long they are performed);
- what hazards have already been identified, and what their sources are;
- what the potential consequences of existing hazards are;
- what protective measures are used;
- what accidents, occupational diseases and other occurrences of ill-health have been reported;
- what legal and other requirements are related to the workplace.

#### How can I collect this information?

You can look for information in the following sources:

- technical data of the equipment, materials, or substances used at the workplace;
- technological procedures and work manuals;
- results of measurements of noxious, or hazardous and strenuous factors at the workplace;
- records of work accidents and occupational diseases;
- specifications of the properties of chemical substances;
- legal regulations and technical standards;
- scientific and technical literature.

Information can also be obtained by:

- observing the work environment;
- observing the tasks performed at the workplace;
- observing the tasks performed outside the workplace;
- interviewing employees;
- observing external factors that may have an impact on the workplace (e. g., tasks performed by third parties, weather conditions).





## STEP 2

### How can I identify hazards?

To identify hazards at the workplace use the GENERAL CHECKLIST and:

- if you know that a hazard exists ▶ tick "YES"
- if you know that a hazard does not exist ▶ tick "NO"
- if you are not sure if a hazard exists:  
use the HAZARD-SPECIFIC CHECKLIST indicated in column 5
- if there is no hazard-specific checklist indicated in column 5 of the GENERAL CHECKLIST, you can look for further information on the websites of the European Agency (<http://hwi.osha.europa.eu>) or national authorities, or ask your local occupational safety and health advisors for assistance.

We have also provided some checklists for the following specific sectors:

- office work
- construction
- car repair
- food processing
- woodworking
- agriculture
- small-scale surface mining

If you are involved in one of these activities, go to the sector-specific checklists in PART IV.

**YOUR RISK ASSESSMENT SHOULD BE CARRIED OUT WITH AN ACTIVE INVOLVEMENT OF ALL THE WORKFORCE.**





## Checklist – General

No.	Hazard	YES	NO	Do not know: go to this hazard- specific checklist:
1	2	3	4	5
1.	Uneven or slippery surfaces (which can cause slips, trips, falls, etc.)	<input type="radio"/>	<input type="radio"/>	Part III - 1
2.	Moving vehicles and machines	<input type="radio"/>	<input type="radio"/>	Part III - 2
3.	Moving parts of machines	<input type="radio"/>	<input type="radio"/>	Part III - 3
4.	Objects and parts with dangerous surfaces (sharp, rough, etc.)	<input type="radio"/>	<input type="radio"/>	
5.	Hot or cold surfaces, materials, etc.	<input type="radio"/>	<input type="radio"/>	
6.	High workplaces and climbing points (which can cause falls from a height)	<input type="radio"/>	<input type="radio"/>	
7.	Hand tools	<input type="radio"/>	<input type="radio"/>	
8.	High pressure	<input type="radio"/>	<input type="radio"/>	
9.	Electrical installations and equipment	<input type="radio"/>	<input type="radio"/>	Part III - 4
10.	Fire	<input type="radio"/>	<input type="radio"/>	Part III - 5
11.	Explosion	<input type="radio"/>	<input type="radio"/>	Part III - 6
12.	Chemical substances (including dust) in the air	<input type="radio"/>	<input type="radio"/>	Part III - 7
13.	Noise	<input type="radio"/>	<input type="radio"/>	Part III - 8
14.	Hand-arm vibration	<input type="radio"/>	<input type="radio"/>	Part III - 9
15.	Whole-body vibration	<input type="radio"/>	<input type="radio"/>	Part III - 9
16.	Lighting	<input type="radio"/>	<input type="radio"/>	Part III - 10
17.	UV, IR, laser, and microwave radiation	<input type="radio"/>	<input type="radio"/>	
18.	Electromagnetic fields	<input type="radio"/>	<input type="radio"/>	
19.	Hot or cold climate	<input type="radio"/>	<input type="radio"/>	
20.	Lifting and carrying loads	<input type="radio"/>	<input type="radio"/>	
21.	Work involving poor posture	<input type="radio"/>	<input type="radio"/>	
22.	Biological hazards (viruses, parasites, moulds, bacteria)	<input type="radio"/>	<input type="radio"/>	
23.	Stress, violence, harassment (mobbing)	<input type="radio"/>	<input type="radio"/>	
24.	Others: please specify below and tick "YES":	<input type="radio"/>	<input type="radio"/>	
		<input type="radio"/>	<input type="radio"/>	
		<input type="radio"/>	<input type="radio"/>	



## STEP 3

### How can I assess risk arising from a hazard?

#### A. For each identified hazard:

Decide if risk is small, medium, or high taking into account the probability and severity of harm which can be caused by a hazard. Use the table below to make the decision.

Probability	Severity of consequences		
	Moderate harm	Medium harm	Extreme harm
Highly improbable	Small (1)	Small (1)	Medium (2)
Probable	Small (1)	Medium (2)	High (3)
Highly probable	Medium (2)	High (3)	High (3)

- Highly improbable: should not materialise during the entire occupational career of an employee.
- Probable: may materialise only a few times during the occupational career of an employee.
- Highly probable: may materialise repeatedly during the occupational career of an employee.
- Moderately harmful: accidents and illnesses not causing prolonged distress (such as small nicks, eye irritations, headaches, etc.).
- Medium harmful: accidents and illnesses causing moderate, but prolonged or periodically recurring distress (such as wounds, simple fractures, second-degree burns on a limited body surface, dermal allergy, etc.).
- Extremely harmful: accidents and illnesses causing grave and permanent distress and/or death (e. g., amputations, complex fractures leading to disability, cancer, second- or third-degree burns on a large body surface, etc.).

#### B. Decide whether risk arising from a hazard is acceptable or unacceptable.

In general:

- high risk is unacceptable,
- small and medium risk is acceptable.

If legal requirements are not complied with, risk is not acceptable!

**Remember:** Your risk assessment should always be carried out with the employees' active involvement. When deciding on the acceptability of risk, bear in mind their input, and take into account gender, age, and also health of the employees for whom assessment is conducted.



## STEP 4

### How can I plan actions to eliminate or reduce risk arising from that hazard?

- If risk is high and assessed as unacceptable, actions to reduce it need to be taken at once.
- If risk is medium and assessed as acceptable, it is recommended to plan actions to reduce its level.
- If risk is small and assessed as acceptable, it is necessary to ensure that it will remain at the same level.

Preventive and protective measures should be implemented in the following order of priority:

- eliminate hazard/risk,
- minimise hazard/risk, through organisational measures,
- minimise hazard/risk, through collective protective measures
- reduce risk, through appropriate personal protective equipment.

To find examples of measures which can be used to reduce risk, go to hazard-specific checklists in PART III or PART IV.

## STEP 5

### How should I document my risk assessment?

You can document risk assessment for each workplace using the RISK ASSESSMENT SHEET below.

- Record basic information: company name and address, name of the workplace for which assessment has been conducted, name(s) of person(s) working at the workplace, date of the assessment and the name(s) of person(s) conducting the assessment.
- Record identified hazards (for which you have ticked "YES" in the GENERAL CHECKLIST) in column 2 of the RISK ASSESSMENT SHEET.
- For each identified hazard:
  - record preventive/protective measures used to limit risk arising from a hazard in column 3;
  - record the results of risk assessment (e. g., high/unacceptable) in column 4;
  - record actions planned to reduce risk in column 5.



# Risk Assessment Sheet

Date: \_\_\_\_\_ Card No.: \_\_\_\_\_

Company name and address

Risk assessment undertaken by: (names of people)

Workplace: (name of the workplace)

Name of employee: (name of person working at the workplace)

No.	HAZARD	PREVENTIVE/PROTECTIVE MEASURES USED	RISK ESTIMATION/EVALUATION	ACTIONS PLANNED TO REDUCE RISK
1	2	3	4	5

Signature[s] of people carrying out risk assessment

Signature[s] of people working at the workplace

RISK ASSESSMENT SHEET



## PART III: IDENTIFICATION OF HAZARDS AND SELECTION OF PREVENTIVE MEASURES – GENERAL

### Checklist No. 01

#### HAZARD: UNEVEN OR SLIPPERY FLAT SURFACES

#### Part A: Does the hazard exist at the workplace?

YES – if you have ticked at least one answer in a field marked with

Please note that the list below does not cover all the possible cases in which there are hazards.

QUESTION	YES	NO
1. Do the floors have uneven areas, loose finishes, holes, spills etc.?	<input checked="" type="radio"/>	<input type="radio"/>
2. Are the floors sometimes slippery, e. g., when they are wet due to cleaning, spilling of liquids (e. g., oil), rain or mud, or dusty due to work processes?	<input checked="" type="radio"/>	<input type="radio"/>
3. Are there thresholds or other changes of level on the floors?	<input checked="" type="radio"/>	<input type="radio"/>
4. Are there trailing cables on the floor?	<input checked="" type="radio"/>	<input type="radio"/>
5. Can workers fall or slip due to unsuitable footwear?	<input checked="" type="radio"/>	<input type="radio"/>
6. Are the floors kept tidy?	<input type="radio"/>	<input checked="" type="radio"/>
7. Are there any obstructions and objects (excluding those which cannot be removed) left lying around in work areas?	<input checked="" type="radio"/>	<input type="radio"/>
8. Are obstructions that cannot be removed marked?	<input type="radio"/>	<input checked="" type="radio"/>
9. Are all traffic routes appropriately marked?	<input type="radio"/>	<input checked="" type="radio"/>
10. Is the lighting of floors and traffic routes appropriate?	<input type="radio"/>	<input checked="" type="radio"/>

#### Part B: Examples of preventive measures which can be used to reduce risk

- Selecting flooring carefully, especially if it is likely to become wet or dusty due to work processes; keeping surfaces dry.
- If necessary, treating slippery surfaces chemically; using appropriate cleaning methods.
- Ensuring regular checking of the floor and traffic routes.
- Removing holes, cracks, worn carpets, or rugs, etc.; keeping floors and traffic routes clear.
- Removing thresholds or limiting their height; improving their visibility.
- Providing workers with suitable footwear.
- Ensuring that floors and traffic routes are appropriate marked.
- Ensuring adequate lighting of floors and traffic routes.
- Positioning equipment so as to avoid cables crossing pedestrian routes; using cable covers to fix them securely to surfaces.
- Using anti-slippery and easy to clean materials on floors and traffic routes.
- Ensuring proper flow of liquids from the surface of floors and traffic routes.



## HAZARD: MOVING VEHICLES AND MACHINES

### Checklist No. 02

#### Part A: Does the hazard exist at the workplace?

YES – if you have ticked at least one answer in a field marked with

Please note that the list below does not cover all the possible cases in which there are hazards.

#### QUESTION

	YES	NO
1. Are means of transport ever used in spite of failures and malfunctions?	<input checked="" type="radio"/>	<input type="radio"/>
2. Are the means of transport and work equipment for loading/unloading (e. g., vehicles, hoists, lifting platforms) ever overloaded?	<input checked="" type="radio"/>	<input type="radio"/>
3. Are transport routes free of obstructions?	<input type="radio"/>	<input checked="" type="radio"/>
4. Is the field of vision on transport routes reduced?	<input checked="" type="radio"/>	<input type="radio"/>
5. Are the means of transport ever used by unauthorised people?	<input checked="" type="radio"/>	<input type="radio"/>
6. Are loads always secured properly?	<input type="radio"/>	<input checked="" type="radio"/>
7. Is the drivers' field of vision ever reduced by bulky loads?	<input checked="" type="radio"/>	<input type="radio"/>

#### Part B: Examples of preventive measures which can be used to reduce risk

- Ensuring that means of transport are appropriate for the work to be done.
- Using work equipment with appropriate certificates/licences.
- Using work equipment according to manufacturers' information and manuals.
- Carrying out regular technical inspection of work equipment.
- Ensuring that transport routes are appropriately marked and kept tidy.
- Ensuring that routes are wide enough and that there are no "blind spots" on them.
- Ensuring that loads are placed and secured properly.
- Ensuring that workers are adequately trained.
- Ensuring that self-propelled means of transport have facilities that prevent unexpected start-up.

**Checklist No. 03****HAZARD: MOVING PARTS OF MACHINES****Part A: Does the hazard exist at the workplace?**

YES – if you have ticked at least one answer in a field marked with

Please note that the list below does not cover all the possible cases in which there are hazards.

QUESTION	YES	NO
1. Are there any hazardous moving parts in the machines (including auxiliary parts) without safeguards?	<input checked="" type="radio"/>	<input type="radio"/>
2. Do machine safeguards sufficiently prevent workers' hands, arms, or other parts of the body from contact with dangerous moving parts?	<input type="radio"/>	<input checked="" type="radio"/>
3. Are all machine guards secured firmly and not easily removable?	<input type="radio"/>	<input checked="" type="radio"/>
4. Can an object fall onto the moving parts of a machine?	<input checked="" type="radio"/>	<input type="radio"/>
5. Do safeguards make the operation of a machine inconvenient or more difficult?	<input checked="" type="radio"/>	<input type="radio"/>
6. Can a machine be oiled without removing the safeguard?	<input type="radio"/>	<input checked="" type="radio"/>
7. Is it possible to remove safeguards without stopping dangerous movements?	<input checked="" type="radio"/>	<input type="radio"/>
8. Are there any unguarded gears, sprockets, pulleys, or flywheels?	<input checked="" type="radio"/>	<input type="radio"/>
9. Are there any exposed belts or chain drives?	<input checked="" type="radio"/>	<input type="radio"/>
10. Are there any exposed set screws, key ways, collars, etc.?	<input checked="" type="radio"/>	<input type="radio"/>
11. Is it easy for an operator to reach ON/OFF controls?	<input type="radio"/>	<input checked="" type="radio"/>
12. Is there one control for more than one operator?	<input checked="" type="radio"/>	<input type="radio"/>

**Part B: Examples of preventive measures which can be used to reduce risk**

- Ensuring that machines are operated by trained and authorised workers.
- Ensuring that all proper guards are in place and that they work.
- Using posters and signs to remind workers of the need to use guards.
- Ensuring that that all necessary guards are in place before starting any machine.
- Ensuring that areas around machines are clean, tidy, and free of obstructions.
- Ensuring sufficient space to allow easy movement of workers.
- Providing appropriate personal protective equipment.
- Ensuring adequate lighting on machines and around machines.
- Implementing a clear system of warning information to prevent defective machines being started accidentally.
- Ensuring that machines are maintained and that defects repaired promptly.
- Ensuring that there is sufficient space between the moving parts of a machine and fixed parts near the machine.





## HAZARD: ELECTRICAL INSTALLATIONS AND EQUIPMENT

### Checklist No. 04

#### Part A: Does the hazard exist at the workplace?

YES – if you have ticked at least one answer in a field marked with

Please note that the list below does not cover all the possible cases in which there are hazards.

QUESTION	YES	NO
1. Are you sure that safety devices and switches are in place and that they work?	<input type="radio"/>	<input checked="" type="radio"/>
2. Is there any damaged insulation on lines (e. g., kinks or exposed wires)?	<input checked="" type="radio"/>	<input type="radio"/>
3. Is there any damaged electrical equipment housing, or housing not protected against unauthorised approach?	<input checked="" type="radio"/>	<input type="radio"/>
4. Is there any electrical equipment housing without sign IEC – 60417-5036 (a black thunderbolt on a yellow background within a black triangle)?	<input checked="" type="radio"/>	<input type="radio"/>
5. Are there any damaged plugs or sockets?	<input checked="" type="radio"/>	<input type="radio"/>
6. Is it possible to use electrical equipment in an improper way?	<input checked="" type="radio"/>	<input type="radio"/>
7. Is it possible to use damp electrical equipment or to use electrical equipment with wet hands or in damp clothing?	<input checked="" type="radio"/>	<input type="radio"/>
8. Is it possible to work in dangerous proximity to electrical systems?	<input checked="" type="radio"/>	<input type="radio"/>
9. Are there any live parts near work areas?	<input checked="" type="radio"/>	<input type="radio"/>
10. Are there any exposed conductive parts not connected to the earthing system?	<input checked="" type="radio"/>	<input type="radio"/>
11. Are there any electrostatic charges (such as when refuelling)?	<input checked="" type="radio"/>	<input type="radio"/>

#### Part B: Examples of preventive measures which can be used to reduce risk

- Carrying out a visual check for defects before work starts.
- Ensuring regular tests carried out by electrical experts.
- Using only equipment with the EC mark.
- In the event of equipment damage or defects: switching off the power and pulling out the plug immediately and reporting the damage.
- Ensuring that defects are repaired by an electrical expert.
- Selecting appropriate type of equipment (such as IP protection type, mechanical protection, etc.).
- Carrying out work according to instructions.
- De-energising lines.
- Limiting the work areas of hoisting equipment.
- Checking electrical equipment before it is used after repairs, and on a regular basis.
- Using earth wires.

**Checklist No. 05****HAZARD: FIRE****Part A: Does the hazard exist at the workplace?**

YES – if you have ticked at least one answer in a field marked with

Please note that the list below does not cover all the possible cases in which there are hazards.

QUESTION	YES	NO
1. Are oxidising or flammable substances, such as paint, finishes, adhesives, and solvents used?	<input checked="" type="radio"/>	<input type="radio"/>
2. Are oxidising and flammable substances stored in ventilated rooms?	<input type="radio"/>	<input checked="" type="radio"/>
3. Are Material Safety Data Sheets available for all dangerous chemicals used?	<input type="radio"/>	<input checked="" type="radio"/>
4. Are there any sources of ignition (e. g., open fire, electrical equipment, electrostatic charges, or high temperature)?	<input checked="" type="radio"/>	<input type="radio"/>
5. Are fire-hazard areas appropriately signed?	<input type="radio"/>	<input checked="" type="radio"/>
6. Are employees who use combustible or flammable substances regularly informed about the dangerous properties of these chemicals?	<input type="radio"/>	<input checked="" type="radio"/>
7. Is fire-fighting equipment in place and is it suitable?	<input type="radio"/>	<input checked="" type="radio"/>
8. Is fire-fighting equipment serviceable and serviced regularly?	<input type="radio"/>	<input checked="" type="radio"/>
9. Is fire-fighting equipment easily accessible?	<input type="radio"/>	<input checked="" type="radio"/>
10. Are there emergency and escape plans?	<input type="radio"/>	<input checked="" type="radio"/>
11. Are escape routes marked?	<input type="radio"/>	<input checked="" type="radio"/>
12. Are there fire alarms?	<input type="radio"/>	<input checked="" type="radio"/>
13. Are fire-fighting and alarm drills carried out?	<input type="radio"/>	<input checked="" type="radio"/>
14. Is fire-fighting training provided?	<input type="radio"/>	<input checked="" type="radio"/>



## Part B: Examples of preventive measures which can be used to reduce risk

- Appropriate storing of combustible or flammable substances (e. g., not exceeding maximum storage temperatures).
- Segregating combustible and flammable substances.
- Preventing or eliminating sources of ignition (including prohibition of smoking).
- Providing Material Safety Data Sheets for all flammable substances.
- Cordoning off any danger areas.
- Making sure that appropriate permissions for work with the use of an open flame are in place.
- Providing fire extinguishers (to be selected depending on the combustible material and the size of the workplace).
- Ensuring that electrical equipment is checked regularly.
- Ensuring appropriate choice of fire-fighting equipment.
- Checking and servicing fire-fighting equipment regularly.
- Installing fire alarm equipment.
- Marking escape and rescue routes, keeping escape and rescue routes clean.
- Ensuring training for employees.
- Carrying out emergency drills

ADD YOUR NOTES ►

**Checklist No. 06****HAZARD: EXPLOSION****Part A: Does the hazard exist at the workplace?**

YES – if you have ticked at least one answer in a field marked with

Please note that the list below does not cover all the possible cases in which there are hazards.

QUESTION	YES	NO
1. Are any explosive substance used?	<input checked="" type="radio"/>	<input type="radio"/>
2. Are Material Safety Data Sheets available for all explosive chemicals used?	<input type="radio"/>	<input checked="" type="radio"/>
3. Are explosive chemicals properly labelled?	<input type="radio"/>	<input checked="" type="radio"/>
4. Are explosive mixtures produced in work processes (e. g., air and gases – hydrogen or methane, air and vapour of benzene or acetone, air and wood dust)?	<input checked="" type="radio"/>	<input type="radio"/>
5. Are there any areas where there is a risk of explosion (e. g., rooms in which paints or solvents, flammable liquids or gases are stored)?	<input checked="" type="radio"/>	<input type="radio"/>
6. Are there any areas where there is a risk of explosion as a result of contamination with flammable substances, increased storage temperatures, or excessive quantities of products being stored?	<input checked="" type="radio"/>	<input type="radio"/>
7. Are gas installations closed and regularly checked?	<input type="radio"/>	<input checked="" type="radio"/>
8. Is the electrical equipment used in explosive areas properly selected?	<input type="radio"/>	<input checked="" type="radio"/>
9. Are there any fire sources in explosive areas?	<input checked="" type="radio"/>	<input type="radio"/>
10. Are there any high temperature sources in explosive areas?	<input checked="" type="radio"/>	<input type="radio"/>
11. Are there any electrostatic fields in explosive areas?	<input checked="" type="radio"/>	<input type="radio"/>
12. Is a ventilation system in place and is it regularly checked?	<input type="radio"/>	<input checked="" type="radio"/>
13. Are explosion-hazard areas marked?	<input type="radio"/>	<input checked="" type="radio"/>
14. Is the concentration of explosive substances in explosive areas continuously monitored?	<input type="radio"/>	<input checked="" type="radio"/>
15. Are monitoring devices regularly checked?	<input type="radio"/>	<input checked="" type="radio"/>
16. Are employees who use explosive substances or preparations regularly informed about the dangerous properties of these chemicals?	<input type="radio"/>	<input checked="" type="radio"/>



## Part B: Examples of preventive measures which can be used to reduce risk

- Using ventilation and monitoring concentrations.
- Providing Material Safety Data Sheets for all explosive chemical substances.
- Preventing or eliminating sources of ignition.
- Keeping substances which can form exposable mixtures with air away from open flames, electrical equipment, sparks, etc.
- Keeping stored quantities to a minimum.
- Following instructions not to store certain products together.
- Avoiding contamination and not putting quantities of a product taken from an original container back into it.
- Cordoning off any danger explosive areas.
- Marking any explosive areas.
- Making sure that appropriate permissions for work with the use of an open flame are in place.
- Marking escape and rescue routes and keeping them free from obstacles.
- Training employees.
- Carrying out emergency drills.

ADD YOUR NOTES ►



**Checklist No. 07****HAZARD: CHEMICAL SUBSTANCES****Part A: Does the hazard exist at the workplace?**

YES – if you have ticked at least one answer in a field marked with

Please note that the list below does not cover all the possible cases in which there are hazards.

QUESTION	YES	NO
1. Are hazardous chemical substances (classified as very toxic, toxic, harmful, corrosive, irritant, sensitising, carcinogenic, mutagenic, toxic to reproduction, explosive, oxidising, extremely flammable, highly flammable, or flammable) used?	<input checked="" type="radio"/>	<input type="radio"/>
2. Are Material Safety Data Sheets available for all the hazardous chemicals that are used?	<input type="radio"/>	<input checked="" type="radio"/>
3. Are all hazardous chemicals properly labelled?	<input type="radio"/>	<input checked="" type="radio"/>
4. Are all hazardous chemicals properly handled?	<input type="radio"/>	<input checked="" type="radio"/>
5. Are all the workers who use hazardous chemical substances regularly informed about the dangerous properties of these chemicals?	<input type="radio"/>	<input checked="" type="radio"/>
6. Do young workers or pregnant women have contact with carcinogenic or mutagenic substances?	<input checked="" type="radio"/>	<input type="radio"/>
7. Do you ensure measurements of the concentration (in workplace air) of substances for which Maximum Admissible Concentrations have been established?	<input type="radio"/>	<input checked="" type="radio"/>
8. Are the concentrations of chemical substances in workplace air lower than Maximum Admissible Concentrations?	<input type="radio"/>	<input checked="" type="radio"/>
9. Is collective protective equipment (general ventilation and local ventilation systems) for all workplaces where chemicals are used provided?	<input type="radio"/>	<input checked="" type="radio"/>
10. Are ventilation systems checked regularly?	<input type="radio"/>	<input checked="" type="radio"/>
11. Is personal protective equipment (gloves, goggles or face shields, respirators) for workers who use chemicals provided?	<input type="radio"/>	<input checked="" type="radio"/>
12. Are regular medical examinations for workers exposed to hazardous chemical substances or preparations provided?	<input type="radio"/>	<input checked="" type="radio"/>
13. Are workers exposed to carcinogenic substances under special medical care?	<input type="radio"/>	<input checked="" type="radio"/>
14. Are all the workers trained in the proper way of using and handling hazardous chemical substances or preparations?	<input type="radio"/>	<input checked="" type="radio"/>



## Part B: Examples of preventive measures which can be used to reduce risk

- Substituting very toxic by less toxic substances.
- Elimination of carcinogenic and mutagenic substances, if possible.
- Using automated systems for applying hazardous chemical substances.
- Providing Material Safety Data Sheets for all hazardous chemical substances.
- Ensuring that all hazardous chemical substances are properly labelled.
- Ensuring that all hazardous chemical substances are properly handled.
- Segregating combustible and flammable hazardous chemical substances from one another.
- Ensuring that the concentrations of hazardous chemical substances are measured and monitored.
- Installing appropriate collective protection equipment.
- Ensuring that workers are equipped with personal protective equipment.
- Providing continuous local exhaust ventilation at all workplaces where the concentration of chemical substances exceeds Maximum Admissible Concentration (exhaust systems for, e. g., spraying, painting, or coating).
- Carrying out regular technical checks of the equipment used with chemicals.
- Inspecting and cleaning exhaust ventilation systems on a regular basis to maintain maximum efficiency.
- Ensuring regular medical examinations for workers exposed to hazardous chemical substances, especially to carcinogenic or mutagenic ones.
- Regular training of workers about risk posed by hazardous chemical substances and safe work with them.

ADD YOUR NOTES ►





## Checklist No. 08

### HAZARD: NOISE

#### Part A: Does the hazard exist at the workplace?

YES – if you have ticked at least one answer in a field marked with

Please note that the list below does not cover all the possible cases in which there are hazards.

#### QUESTION

	YES	NO
1. Can high noise levels arise as a result of work processes (e. g., metal-on-metal impact, engines)?	<input checked="" type="radio"/>	<input type="radio"/>
2. Can high noise levels arise as a result of ambient noise which penetrates buildings?	<input checked="" type="radio"/>	<input type="radio"/>
3. Can operating noise mask alarm signals?	<input checked="" type="radio"/>	<input type="radio"/>
4. Is the noise so loud that you would have to raise your voice to talk to people at your workplace?	<input checked="" type="radio"/>	<input type="radio"/>
5. Do you unintentionally raise your voice when you talk to people after leaving your workplace?	<input checked="" type="radio"/>	<input type="radio"/>

#### Part B: Examples of preventive measures which can be used to reduce risk

- Determining workers' exposure; checking compliance with the limits established in legal requirements.
- Introducing engineering controls which can reduce noise emission (e. g., isolating vibrating machinery or components from their surroundings, fitting air exhausts with silencers).
- Positioning sources of noise further away from workers.
- Limiting time spent in noisy areas.
- Mounting enclosures around machines to reduce noise emission.
- Introducing barriers or screens to block the direct path of sound.
- Identifying ear protection zones and marking them with signs showing that hearing protection must be worn.
- Providing appropriate hearing protection (in consultation with employees or their representatives).
- Ensuring that hearing protection is used.
- Ensuring that hearing protection works effectively and is properly maintained.
- Providing information, instruction, and training.
- Ensuring regular hearing checks for all workers exposed to high level noise.





HAZARD: VIBRATION

Checklist No. 09

Part A: Does the hazard exist at the workplace?

YES – if you have ticked at least one answer in a field marked with ●  
 Please note that the list below does not cover all the possible cases in which there are hazards.

QUESTION

	YES	NO
1. Is work done (often or over long periods) in conditions in which clearly perceptible vibrations can be felt when standing or sitting?	●	○
2. Is work done (often or over long periods) using hand-held power tools and equipment which can generate vibration?	●	○

Part B: Examples of preventive measures which can be used to reduce risk

- Determining workers' personal exposure to vibration; checking compliance with the limits established by law.
- Isolating the workplace (seats, floors) from vibration.
- Avoiding equipment and tools which generate vibration.
- Reducing time spent working with equipment generating vibration.
- Using the right tools (equipped with insulated or low-impact hand grips, etc.) and ensuring that they are properly maintained.
- Following the instructions for use of equipment and tools.
- Ensuring appropriate training and information.
- Providing protective gloves to ensure protection from hand-arm vibration.
- Ensuring that protective gloves are used and properly maintained.
- Keeping warm at work, especially warm hands; doing hand exercises.
- Providing protective clothing necessary to keep workers warm and dry.
- Ensuring regular medical examinations.

**Checklist No. 10****HAZARD: LIGHTING****Part A: Does the hazard exist at the workplace?**

YES – if you have ticked at least one answer in a field marked with

Please note that the list below does not cover all the possible cases in which there are hazards.

QUESTION	YES	NO
1. Is lighting at the workplace sufficient to perform tasks efficiently and accurately?	<input type="radio"/>	<input checked="" type="radio"/>
2. Are there visible shadows in the task area which may affect efficiency and accuracy of work?	<input checked="" type="radio"/>	<input type="radio"/>
3. Is the lighting of circulation areas, corridors, stairs, storage rooms, etc., adequate to move safely and to notice any obstacles (holes in the ground, objects lying on the ground, steps, slippery surfaces or spills, the edge of a platform, etc.)?	<input type="radio"/>	<input checked="" type="radio"/>
4. Can bright sources/surfaces impair workers' vision of objects?	<input checked="" type="radio"/>	<input type="radio"/>
5. Are there any complaints from workers related to poor visibility, glare, or unsuitable lighting at the workplace?	<input checked="" type="radio"/>	<input type="radio"/>
6. Are there excessive contrasts in the field of vision which can result in fatigue or constant re-adaptation of the eyes?	<input checked="" type="radio"/>	<input type="radio"/>
7. Are there veiling reflections in the work area (direct reflections from polished, shiny, or glossy surfaces) which alter task visibility?	<input checked="" type="radio"/>	<input type="radio"/>
8. Are there large spatial variations in lighting around the work area which may lead to visual stress?	<input checked="" type="radio"/>	<input type="radio"/>
9. Are the colours of objects and of skin, in the work environment, rendered naturally under existing artificial lighting?	<input type="radio"/>	<input checked="" type="radio"/>
10. Are safety colours recognisable under existing artificial lighting?	<input type="radio"/>	<input checked="" type="radio"/>
11. Can workers see the flicker of light?	<input checked="" type="radio"/>	<input type="radio"/>
12. Is rotating machinery perceived as motionless during its normal work under existing artificial lighting (i. e., there is the stroboscopic effect)?	<input checked="" type="radio"/>	<input type="radio"/>



## Part B: Examples of preventive measures which can be used to reduce risk

- Periodic measurements of lighting and lighting uniformity in the task area and the surrounding area at the workplace.
- Periodic measurements of lighting and lighting uniformity in circulation areas, corridors, stairs, etc.
- Compliance with the lighting designer's maintenance programme, including frequency of lamp replacement, room cleaning intervals, and cleaning methods.
- Compliance with the principles of lighting design such as workplace arrangements, type and specifications of lamps (power, light colour, and colour rendering factor), and surface finishes (reflectance, colour, matt, or glossy).
- Using additional local or localised lighting at the workplace where high levels of lighting are required.
- Using more indirect lighting and local lighting to eliminate shadows in the task area.
- Avoiding glossy surfaces at the workplace (tables, other furniture, etc.).
- Avoiding the flicker and stroboscopic effect.
- Periodic use of a checklist or conducting interviews with workers related to problems with lighting.

ADD YOUR NOTES ►



## PART IV: IDENTIFICATION OF HAZARDS AND SELECTION OF PREVENTIVE MEASURES – FOR SPECIFIC SECTORS AND WORK

### Checklist Office Work

#### Part A: Does the hazard exist at the workplace?

YES – if you have ticked at least one answer in a field marked with

Please note that the list below does not cover all the possible cases in which there are hazards.

QUESTION	YES	NO
<b>WORKPLACE ENVIRONMENT</b>		
Is there floor covering suitable (without holes or obstacles)?	<input type="radio"/>	<input checked="" type="radio"/>
Is microclimate appropriate (temperature, sun radiation, humidity, and airflow, (e. g., according to national regulations, experts, or staff consultation)?	<input type="radio"/>	<input checked="" type="radio"/>
Is the size of the room appropriate for the number of employees working in it (e. g., according to national legal regulations)?	<input type="radio"/>	<input checked="" type="radio"/>
Does the room have natural lighting?	<input type="radio"/>	<input checked="" type="radio"/>
In the case of work with Video Display Units (VDUs), are the windows equipped with shades, parasols, or curtains which can eliminate (or minimise) light falling onto the screen?	<input type="radio"/>	<input checked="" type="radio"/>
Do light sources, windows and doors, varnished furniture, or walls cause reflections on computer screens?	<input checked="" type="radio"/>	<input type="radio"/>
Does noise disturb attention and verbal communication?	<input checked="" type="radio"/>	<input type="radio"/>
Do wires and cables hinder employees in their free movements or pose a danger of tripping?	<input checked="" type="radio"/>	<input type="radio"/>
Do employees have sufficient space to alter their posture?	<input type="radio"/>	<input checked="" type="radio"/>
Is the building properly cleaned and maintained?	<input type="radio"/>	<input checked="" type="radio"/>
Is first aid equipment available and is personnel trained in using it?	<input type="radio"/>	<input checked="" type="radio"/>
Are escape routes and emergency exits properly signed and kept clear?	<input type="radio"/>	<input checked="" type="radio"/>
<b>VIDEO DISPLAY UNITS (VDUS) AND PCS</b>		
Are the images on VDUs well-defined, clearly formed and of suitable size with suitable line spacing?	<input type="radio"/>	<input checked="" type="radio"/>
Are the images on VDUs free from vibration (no blurring or trembling)?	<input type="radio"/>	<input checked="" type="radio"/>
Can the user easily adjust the brightness and contrast between the characters and the background?	<input type="radio"/>	<input checked="" type="radio"/>
Can the VDUs be moved according to the requirements of the user (turned, tilted, etc.) and fixed in the required positions?	<input type="radio"/>	<input checked="" type="radio"/>
Does general and local lighting ensure satisfactory light and contrast between the screen and the background of the VDUs?	<input type="radio"/>	<input checked="" type="radio"/>
Is the distance between the eyes and the screen 50-80 cm?	<input type="radio"/>	<input checked="" type="radio"/>
Is the screen free from reflections that may disturb vision?	<input type="radio"/>	<input checked="" type="radio"/>
Is the keyboard separate from the monitor? Is comfortable posture of the trunk, arms, and hands possible?	<input type="radio"/>	<input checked="" type="radio"/>
Is the space in front of the keyboard and the mouse sufficient for supporting the user's wrists?	<input type="radio"/>	<input checked="" type="radio"/>



**QUESTION**

**YES**

**NO**

Are the keyboard and the mouse in the vicinity of each other? Are they at the same level?



Is the surface of the keyboard matt to prevent reflections?



Can the symbols on the keys be distinguished easily; can people read them well if they are in the correct working posture?



**WORKPLACE EQUIPMENT**

Is the chair stable; does it ensure free movement and a comfortable body posture?



Is the height of the chair easily adjustable?



Is the height of the back of the chair adjustable?



If necessary, is arm support available?



If necessary, is foot support available?



Can the most frequently used equipment and other objects at the workplace be reached without turning the head and trunk?



Does the height of the desk ensure the mobility of the legs (and thighs)?



Is the page-holder adjustable; can it be fixed in a position which ensures comfortable readability for the user?



**SOFTWARE ERGONOMICS**

Does the software meet the requirements of the task?



Can the software be adjusted to a beginner's level?



Is the software provided with mother-tongue help?



Does the software present information in a form adapted to the user?



Does the employee have support in the case of problems with the software?



**WORK ORGANISATION**

In the case of continuous work in front of the screen, is it possible to take suitable breaks or can the employee change the type of work?



Is the real length of work in front of the screen shorter than 6 hours per day?



Do employees' tasks vary?



Can employees control the order in which they do their tasks?



Do employees feel excessive pressure to meet demanding work targets or deadlines?



Does the employer ensure adequate information, training, and consultation prior to establishing, keeping up, or improving workplaces involving the use of computers?



## Part A: Does the hazard exist at the workplace?

### QUESTION

YES

NO

#### HEALTH HAZARDS

Is attention paid to employees' complaints of problems with their eyesight?



Is employees' eyesight systematically monitored (as required by national legislation)?



If an ophthalmologist's examination reveals that an employees' glasses or contact lenses are not suitable for working with VDUs, is the employee provided with glasses necessary for clear vision?



If employees complain of musculoskeletal pain (neck, back, shoulders, legs), is an ergonomic evaluation carried out?



## Part B: Examples of preventive measures which can be used to reduce risk

#### WORKPLACE ENVIRONMENT

- Carrying out regular risk assessment.
- Consulting staff on suitable changes to the working environment.
- Measuring and monitoring parameters of the environment.
- Involving experts when designing (or refurbishing) workplaces.

#### VIDEO DISPLAYS UNITS (VDUS) AND PCS

- Ensuring that appropriate equipment is used for each type of work activity.
- Taking ergonomic aspects into consideration when designing (or refurbishing) workplaces.

#### WORKPLACE EQUIPMENT

- Maintaining equipment regularly.
- Rearranging work area (ergonomic intervention).

#### PERSON-MACHINE INTERACTION (SOFTWARE ERGONOMICS)

- Training employees to use software.
- Applying the results of technical development (software updates and enhancements).

#### WORK ORGANISATION

- Providing employees with suitable OSH instructions.
- Continuous evaluation of the effectiveness of preventive measures.
- Consulting employees on decisions regarding work organisation.
- Monitoring the health effects of working hours and time schedules.

#### HEALTH HAZARDS

- Improving ergonomic functionality of workplace equipment, especially space relations between desk-monitor-chair.
- Improving lighting, eliminating reflections and glare on VDUs.
- Systematic medical monitoring of employees' health (especially for eyesight and musculoskeletal problems).



## Checklist Construction

### Part A: Does the hazard exist at the workplace?

YES – if you have ticked at least one answer in a field marked with   
 Please note that the list below does not cover all the possible cases in which there are hazards.

QUESTION	YES	NO
Can workers get to their place of work safely?	<input type="radio"/>	<input checked="" type="radio"/>
Is the site fenced so that the public cannot get in?	<input type="radio"/>	<input checked="" type="radio"/>
Are measures in place to protect members of the public (such as people passing by the site)?	<input type="radio"/>	<input checked="" type="radio"/>
Are traffic routes cleaned and lit well?	<input type="radio"/>	<input checked="" type="radio"/>
Are vehicles equipped with sirens that beep when they move backwards?	<input type="radio"/>	<input checked="" type="radio"/>
Is the site tidy and well laid out?	<input type="radio"/>	<input checked="" type="radio"/>
Is the site lit well?	<input type="radio"/>	<input checked="" type="radio"/>
Are appropriate safety signs in place (e. g., traffic routes, authorised personnel)?	<input type="radio"/>	<input checked="" type="radio"/>
Are workers' facilities sufficient (changing rooms, washrooms, etc.)?	<input type="radio"/>	<input checked="" type="radio"/>
Are there facilities for the workers to eat their meals (canteen, etc.)?	<input type="radio"/>	<input checked="" type="radio"/>
Are there first-aid facilities; is health surveillance ensured?	<input type="radio"/>	<input checked="" type="radio"/>
Have workers been instructed and trained on safe manual handling?	<input type="radio"/>	<input checked="" type="radio"/>
Is appropriate lifting equipment provided for handling heavy loads?	<input type="radio"/>	<input checked="" type="radio"/>
Are existing power lines (buried or overhead) identified?	<input type="radio"/>	<input checked="" type="radio"/>
Is there a system of work that deals with live electric lines in place?	<input type="radio"/>	<input checked="" type="radio"/>
Are precautions taken to ensure that electrical systems and equipment are maintained and frequently inspected by a competent person?	<input type="radio"/>	<input checked="" type="radio"/>
Are scaffolds erected, altered, and dismantled by competent people?	<input type="radio"/>	<input checked="" type="radio"/>
Do workers check scaffolding periodically?	<input type="radio"/>	<input checked="" type="radio"/>
Do workers use mobile ladders only for light work of short duration and when there is no other choice?	<input type="radio"/>	<input checked="" type="radio"/>
Do workers know the safest way to place and to use mobile ladders?	<input type="radio"/>	<input checked="" type="radio"/>
Is the width of the work area on the scaffolding always larger than the minimum (60 cm)?	<input type="radio"/>	<input checked="" type="radio"/>
Have lifts and hoists been properly installed and checked by competent people?	<input type="radio"/>	<input checked="" type="radio"/>
Do employees use appropriate guards or wear safety belts when working at a height?	<input type="radio"/>	<input checked="" type="radio"/>
Are measures in place to stop workers and objects from falling?	<input type="radio"/>	<input checked="" type="radio"/>
Do all people on the site wear correct protective equipment (e. g., footwear, hard hat)?	<input type="radio"/>	<input checked="" type="radio"/>
Are suitable protective measures used to prevent or to reduce exposure to dust (e. g., wood, cement, and silica)?	<input type="radio"/>	<input checked="" type="radio"/>
Are suitable protective measures used to prevent or to reduce exposure to noise and vibration?	<input type="radio"/>	<input checked="" type="radio"/>



## Part A: Does the hazard exist at the workplace?

YES – if you have ticked at least one answer in a field marked with

Please note that the list below does not cover all the possible cases in which there are hazards.

### QUESTION

	YES	NO
Is work equipment and machinery maintained in a safe condition?	<input type="radio"/>	<input checked="" type="radio"/>
Do the machines' safety devices (i. e., sound signals, guards) work?	<input type="radio"/>	<input checked="" type="radio"/>
Is the equipment for the protection of excavations used to minimise the risk of collapse?	<input type="radio"/>	<input checked="" type="radio"/>
Are vehicle and plant operators suitably trained?	<input type="radio"/>	<input checked="" type="radio"/>
Do all employees get information about potential risk and the established preventive measures in a language and at a level that they understand?	<input type="radio"/>	<input checked="" type="radio"/>

## Part B: Examples of preventive measures which can be used to reduce risk

### THE DESIGN PHASE OF A PROJECT

- Ensuring that safety and health are integrated into the architectural design.
- Eliminating risk of falls by providing suitable ladders that will be used with an appropriate slope and will be property secured against inadvertent movement.
- Designing and installing access routes to roofs.
- Ensuring that every lifting appliance and item of lifting gear, including their constituent elements, attachments, anchorages, and supports are of good design and construction, properly installed and used, maintained in good working order, examined and tested by a competent person according to national regulations and operated by workers who have received appropriate training.
- Providing adequate and suitable lighting at every workplace, staircase, and any other place on the construction site where a worker may pass.
- Planning and performing demolition activities only under the supervision of a competent person.
- Organising appropriate disposal of construction waste.
- Building maintenance or demolition: taking all precautions in the case of work with asbestos.
- Providing an appropriate number of sanitary and washing facilities, areas for eating and for taking shelter during an interruption of work due to adverse weather.





### THE ORGANISATION PHASE

- Modifying the work schedule in order to reduce risk, if the need arises.
- Organising tasks that involve similar protective actions to be performed simultaneously in order to provide collective protection measures.
- Making sure that all employees, including those who do not understand the national language well, are familiar with the potential risk at the site, the established safety measures, and their responsibilities with respect to health and safety issues.
- Providing workers with necessary personal protective equipment (hard hats, gloves, masks, safety shoes).
- Keeping first-aid material on site.

### THE EXECUTION PHASE

- Assigning a health and safety coordinator that has training on health and safety issues.
- Inspecting daily the condition of the scaffolding, before starting any work at the site.
- Never de-assembling parts of the scaffolding before the completion of all work.
- Ensuring that the width of the work area on the scaffolding is not shorter than 60 cm.
- Never climbing on scaffolding, always use a suitable ladder.
- Ensuring that mobile ladders are placed with an appropriate slope, with the top of the ladder above the surface onto which the worker steps.
- Ensuring that the rungs of the ladder are covered with anti-slippery material, and kept free from obstacles.
- Never using a single ladder longer than 6 m.
- When ascending or descending a mobile ladder always facing it and using both hands to hold it. Always placing the tools in an auxiliary kit worn from the waist, and using lifting equipment for the materials to be used.
- While working on a mobile ladder never stretching the body sideways.
- Never working on roofs in adverse weather conditions.
- Placing guards when working at a height, including roof work.
- Never walking on surfaces covered with fragile material.
- Performing a daily check of the main electrical switch of the site, and any live electrical cable or apparatus that is under, over, or on the site. Never commencing any work before a competent person has performed this check.
- Keeping toxic and dangerous products, and explosives, under control and well signposted.
- Keeping the site tidy at all times.
- Keeping all passages and ladders free of obstacles.



## Checklist Food Processing

### Part A: Does the hazard exist at the workplace?

YES – if you have ticked at least one answer in a field marked with

Please note that the list below does not cover all the possible cases in which there are hazards.

QUESTION	YES	NO
<b>WORK EQUIPMENT</b>		
Are sharp tools used (cutters, knives, axes, etc.)?	<input checked="" type="radio"/>	<input type="radio"/>
Are all machines equipped with guards?	<input type="radio"/>	<input checked="" type="radio"/>
Is work performed on a production line (risk of being drawn into it, cutting oneself, amputation, etc.)?	<input checked="" type="radio"/>	<input type="radio"/>
Could workers' clothing be caught between movable parts of machines causing injury?	<input checked="" type="radio"/>	<input type="radio"/>
Are stackers used?	<input checked="" type="radio"/>	<input type="radio"/>
Are workers in contact with hot or frozen materials and/or equipment?	<input checked="" type="radio"/>	<input type="radio"/>
Are machines cleaned and maintained when connected to the power source?	<input checked="" type="radio"/>	<input type="radio"/>
<b>CHEMICAL AND BIOLOGICAL HAZARDS</b>		
Is ammonia or another chemical used for cooling?	<input checked="" type="radio"/>	<input type="radio"/>
Is entering closed tanks, cisterns, and/or reservoirs necessary (e. g., during inspection, maintenance)?	<input checked="" type="radio"/>	<input type="radio"/>
Are workers in direct contact with raw materials and/or materials of animal or plant origin (biol. hazards)?	<input checked="" type="radio"/>	<input type="radio"/>
<b>EXPLOSIONS</b>		
Is there airborne/settled dust (e. g., flour) in the working environment?	<input checked="" type="radio"/>	<input type="radio"/>
Are there pressure devices at the workplace?	<input checked="" type="radio"/>	<input type="radio"/>
<b>AIR QUALITY</b>		
Are workers exposed to bad smell/odour?	<input checked="" type="radio"/>	<input type="radio"/>
Are fans without blade covers used?	<input checked="" type="radio"/>	<input type="radio"/>
Are adequate respirators for the protection of workers' respiratory system used?	<input type="radio"/>	<input checked="" type="radio"/>
<b>HEALTH RISK</b>		
Are workers exposed to a hot and/or a cold environment?	<input checked="" type="radio"/>	<input type="radio"/>
Do workers carry loads or work in tiring postures?	<input checked="" type="radio"/>	<input type="radio"/>
Do employees work at a monotonous or forced pace?	<input checked="" type="radio"/>	<input type="radio"/>
Do employees work night shifts?	<input checked="" type="radio"/>	<input type="radio"/>



## Part B: Examples of preventive measures which can be used to reduce risk

### WORK EQUIPMENT

- Ensuring regular and consistent supervision of workers, inspection of manufacturing equipment, and workplaces.
- Installing suitable guards; ensuring that specific pieces of equipment (mixers, cutting machines, etc.) are equipped with guards.
- Using correct personal protective equipment.
- Providing regular training oriented towards risk specific to this sector.
- Training workers in the proper use and maintenance of machines and equipment; allowing only trained workers to operate equipment.
- Ensuring that workers use specific pieces of equipment in accordance with safe procedures.
- Maintaining maintenance and cleaning of all pieces of equipment regularly.
- Ensuring classification of hazardous pieces of equipment.
- Never cleaning and maintaining machines connected to the power source.

### CHEMICAL AND BIOLOGICAL HAZARDS

- Using correct personal protective equipment when working with chemicals (gloves, safety glasses, face shields, respirators).
- Ensuring the proper marking of areas of chemical preparation storage, complying with local working regulations, including instructions for material handling for storage areas and process equipment.
- Not entering tanks, cisterns, or reservoirs without the presence of another person.
- Familiarising workers with the effects of chemicals, with protection against their effects, and providing first aid.
- Ensuring employees' health check-ups in connection with specific requirements of the workplace (medical assessment).

### EXPLOSIONS

- Assessing the safety of cooling and pressure equipment; inspecting machines and equipment regularly.
- Paying special attention to the cleaning and maintenance of machines and equipment in dusty air where there is an explosion risk.

### AIR QUALITY

- If atmosphere is polluted at the workplace, installing, inspecting, and maintaining a ventilation system.
- Equipping fans located in the vicinity of machine operators with blade covers.
- Monitoring the quality of workplace air.

### HEALTH RISK

- Keeping all necessary hygienic standards.
- Providing regular information and training for workers.
- Providing regular medical examinations for workers.
- Providing safety breaks and an appropriate work-rest schedule.



## Checklist Woodworking

### Part A: Does the hazard exist at the workplace?

YES – if you have ticked at least one answer in a field marked with

Please note that the list below does not cover all the possible cases in which there are hazards.

QUESTION	YES	NO
<b>WORK EQUIPMENT</b>		
Are all machines equipped with guards?	<input type="radio"/>	<input checked="" type="radio"/>
Are instructions for safe working practice available?	<input type="radio"/>	<input checked="" type="radio"/>
Are workers trained to use the machines?	<input type="radio"/>	<input checked="" type="radio"/>
Are inspections and examinations of work equipment conducted regularly?	<input type="radio"/>	<input checked="" type="radio"/>
Do workers use push sticks to guide short or narrow pieces of stock through saws?	<input type="radio"/>	<input checked="" type="radio"/>
Is it possible for a worker's clothing to be caught in moving parts and cause him/her harm?	<input checked="" type="radio"/>	<input type="radio"/>
<b>ELECTRICAL HAZARDS</b>		
Are electrically driven machines grounded?	<input type="radio"/>	<input checked="" type="radio"/>
Are all electrical cords, cables and plugs kept in good condition?	<input type="radio"/>	<input checked="" type="radio"/>
Are all outlets, junctions, switches and fittings covered?	<input type="radio"/>	<input checked="" type="radio"/>
Is equipment with a hazard classification properly rated for the working environment?	<input type="radio"/>	<input checked="" type="radio"/>
<b>AIR QUALITY</b>		
Is there an at-source exhaust system for woodworking machines, activated automatically when the machines are used?	<input type="radio"/>	<input checked="" type="radio"/>
Are exhaust installations checked regularly?	<input type="radio"/>	<input checked="" type="radio"/>
Are ceilings, partition walls and cable ducts cleaned and de-dusted?	<input type="radio"/>	<input checked="" type="radio"/>
Is the quality of workplace air evaluated?	<input type="radio"/>	<input checked="" type="radio"/>
Do workers use a respirator when they work in spray booths?	<input type="radio"/>	<input checked="" type="radio"/>
<b>CHEMICALS</b>		
Are all workers who use dangerous chemicals regularly trained?	<input type="radio"/>	<input checked="" type="radio"/>
Do workers use personal protective equipment when they use chemicals (gloves, goggles or face shields, respirators)?	<input type="radio"/>	<input checked="" type="radio"/>
Are chemicals kept away from fire sources?	<input type="radio"/>	<input checked="" type="radio"/>
<b>NOISE AND VIBRATIONS</b>		
Are noise levels evaluate at the workplace?	<input type="radio"/>	<input checked="" type="radio"/>
Do workers exposed to high level of noise use hearing protection?	<input type="radio"/>	<input checked="" type="radio"/>
Are vibrations which might transmit from the machine through the work piece to the worker's arm avoided?	<input type="radio"/>	<input checked="" type="radio"/>
<b>HEALTH RISK</b>		
Are special medical examinations for staff organised?	<input type="radio"/>	<input checked="" type="radio"/>
Are workers exposed to high level of noise sent for periodical audiometric tests?	<input type="radio"/>	<input checked="" type="radio"/>
Are workers trained in the proper way of lifting and carrying loads?	<input type="radio"/>	<input checked="" type="radio"/>
Do you try to meet workers' special needs when you arrange their workplace (ergonomics)?	<input type="radio"/>	<input checked="" type="radio"/>



## Part B: Examples of preventive measures which can be used to reduce risk

### WORK EQUIPMENT

- Ensuring that operator and machine are equipped with safety accessories suitable for the hazards of the job.
- Using equipment according to manufacturer's information and manual.
- Carrying out regular technical checks of equipment.
- Installing appropriate guards.
- Training workers on operating and maintaining equipment.
- Ensuring that woodwork equipment and guards are maintained and regularly cleaned.
- Allowing only trained and authorised workers to operate and maintain equipment.

### ELECTRICAL HAZARDS

- Grounding all machines, including motor and frame.
- Regularly checking all electrical installations.

### AIR QUALITY

- Providing continuous local exhaust ventilation on all woodworking machines and independent exhaust systems for spraying, painting or coating work.
- Regular manual cleaning of the workshop.
- Inspecting and cleaning the exhaust ventilation system on a regular basis to maintain maximum efficiency.
- Never permitting blow-down of accumulated dust with compressed air.

### CHEMICALS

- Substituting solvent-based coatings and adhesives with coatings and adhesives that are less or non-toxic.
- Using automated systems for applying coatings and adhesives.
- Training workers in safe work with dangerous chemicals.

### NOISE AND VIBRATIONS

- Reducing noise levels on machines with different measures (source control).
- Reducing noise levels by isolating, blocking, diverting and absorbing (path control).
- Using vibration isolators or dumping techniques on equipment.
- Restricting the number of hours a worker uses a vibrating tool.
- Allow employees to take 10- to 15-minute breaks from the source of vibration every hour.

### HEALTH RISK

- Educating workers regularly about risk at work and about healthy life style.
- Examining workers periodically with regard to risk to their health at their workplace.
- Providing safety breaks and an appropriate work-rest schedule.



## Checklist Car Repair

### Part A: Does the hazard exist at the workplace?

YES – if you have ticked at least one answer in a field marked with

Please note that the list below does not cover all the possible cases in which there are hazards.

QUESTION	YES	NO
Are flat surfaces (floor, inspection pit, etc.) regularly cleaned?	<input type="radio"/>	<input checked="" type="radio"/>
Are employees obliged to clean the workplace?	<input type="radio"/>	<input checked="" type="radio"/>
Are flat surfaces (floor, inspection pit in service station, etc.) paint resistant from substances that are used (e. g., oil, diesel, petrol)?	<input type="radio"/>	<input checked="" type="radio"/>
Is the oil used (old and new) collected in appropriate containers?	<input type="radio"/>	<input checked="" type="radio"/>
Are the steps to the inspection pit made from non-slipping material?	<input type="radio"/>	<input checked="" type="radio"/>
Do workers wear non-slipping shoes?	<input type="radio"/>	<input checked="" type="radio"/>
Are there guardrails at free edges of platforms?	<input type="radio"/>	<input checked="" type="radio"/>
Are employees told not to step on brake tester cylinders?	<input type="radio"/>	<input checked="" type="radio"/>
Are employees told not to step under raised vehicles?	<input type="radio"/>	<input checked="" type="radio"/>
Is the inspection pit safely covered after work?	<input type="radio"/>	<input checked="" type="radio"/>
Is the inspection pit suitably marked or surrounded with handrails to prevent people from falling down?	<input type="radio"/>	<input checked="" type="radio"/>
Do any employees work in narrow areas?	<input checked="" type="radio"/>	<input type="radio"/>
Are acoustic and other signals recognisable in narrow work areas (e. g., measuring apparatus)?	<input type="radio"/>	<input checked="" type="radio"/>
Is there a fixed place for working tools?	<input type="radio"/>	<input checked="" type="radio"/>
Are there marked (e. g., on the floor) ways for cars to enter the service station?	<input type="radio"/>	<input checked="" type="radio"/>
Are there safe instructions for entering and leaving cars from the diagnostic path?	<input type="radio"/>	<input checked="" type="radio"/>
Are there measures implemented to avoid injuries while working on bodywork (e. g., welding, grinding, painting)?	<input type="radio"/>	<input checked="" type="radio"/>
Are there defined safety rules for assembly work (e. g., bodywork, engine)?	<input type="radio"/>	<input checked="" type="radio"/>
Are there defined safety rules for work with petrol tanks (e. g., repairing)?	<input type="radio"/>	<input checked="" type="radio"/>
Are there defined safe routings or measures to avoid falling parts from a vehicle (e. g., when a car is lifted)?	<input type="radio"/>	<input checked="" type="radio"/>
Are there protective guards to eliminate contact of workers with rotating parts (e. g., when balancing a dynamic wheel)?	<input type="radio"/>	<input checked="" type="radio"/>
Are measures implemented to avoid workers being caught by rotating parts (e. g., when an engine set up)?	<input type="radio"/>	<input checked="" type="radio"/>
Is there a possibility to fix the garage gate to avoid involuntary closing (e. g., due to strong winds while cars are being driven in or out)?	<input type="radio"/>	<input checked="" type="radio"/>
Are there organisational and technical measures to avoid fire and heat when, e. g., a car is in a room when paint is drying?	<input type="radio"/>	<input checked="" type="radio"/>
Are there instructions to avoid fire in the room in which batteries are stored?	<input type="radio"/>	<input checked="" type="radio"/>
Are there measures implemented to avoid explosion when batteries are charged?	<input type="radio"/>	<input checked="" type="radio"/>
Are there measures in place to protect electrical equipment from water?	<input type="radio"/>	<input checked="" type="radio"/>



**QUESTION**

**YES**      **NO**

QUESTION	YES	NO
Are suitable protective measures being used to prevent or reduce exposure to dust and other small parts (e. g., during grinding, welding, painting)?	<input type="radio"/>	<input checked="" type="radio"/>
Is the lighting in the inspection pit suitable for performing visual tasks?	<input type="radio"/>	<input checked="" type="radio"/>
Is the temperature in the service station suitable for work in during both winter and summer?	<input type="radio"/>	<input checked="" type="radio"/>
Is there sufficient ventilation to work in the inspection pit (e. g., welding, grinding)?	<input type="radio"/>	<input checked="" type="radio"/>
Do workers have suitable capabilities and skills to perform their work?	<input type="radio"/>	<input checked="" type="radio"/>

**Part B: Examples of preventive measures which can be used to reduce risk**

- Maintaining flat surfaces, floor, inspection pit, etc., safe and non-slippery; cleaning work area regularly.
- Cleaning thoroughly after grinding, painting, etc.
- Using appropriate material (non-absorbing liquid substances) for flat surfaces.
- Using correct procedures when pouring oil from a storage barrel and collecting used oil into appropriate barrel; cleaning oil off the floor.
- Wearing protective non-slippping shoes.
- Covering the steps into the inspection pit with non-slippping material.
- Never stepping on brake tester cylinders. Not staying close to the diagnostic path during a brake test.
- Never stepping under raised vehicles.
- Never stepping into a closed inspection pit in a service station.
- Keeping inspection pits in service station covered after work.
- Keeping electrical, hydraulic and pneumatic lines out of people's way.
- Indicating fixed places for working tools, to be used during work and after work.
- Marking (e. g., on the floor) ways for cars and transport routes.
- Ensuring correct control and placement of lifting mechanism arms; not putting hands into moving parts.
- Ensuring that all activities are performed by well-trained staff; respecting all required safety procedures.
- Using only recommended safe tools for work with batteries.
- Ensuring proper ventilation to avoid creation of explosive mixtures of various vapours and liquids. Never smoking in dangerous areas.
- Protecting all electrical equipment from humidity, moisture and water.
- Providing workers with necessary personal protective equipment (gloves, masks, safety shoes).
- Using effective ventilation and exhaust systems to eliminate hazardous vapours or fumes; where these are not fully effective, using appropriate personal protective equipment.
- Installing suitable lighting in the inspection pit.
- Equipping all work areas with heating/cooling devices to obtain suitable working conditions.
- Performing regular medical examinations.



## Checklist Agriculture

### Part A: Does the hazard exist at the workplace?

YES – if you have ticked at least one answer in a field marked with

Please note that the list below does not cover all the possible cases in which there are hazards.

QUESTION	YES	NO
<b>MACHINERY AND WORK EQUIPMENT</b>		
Are workers trained in operating safely the machines and work equipment they use?	<input type="radio"/>	<input checked="" type="radio"/>
Are all guards of PTO drive shafts and other guards of machinery and work equipment in place and in good condition?	<input type="radio"/>	<input checked="" type="radio"/>
Are there always TWO independent means for keeping raised equipment up when working under it?	<input type="radio"/>	<input checked="" type="radio"/>
Are there means for safe changing of tractor wheels available and used?	<input type="radio"/>	<input checked="" type="radio"/>
Is the circular saw for woodworking equipped with riving knives and safety appliances like a push stick or a push block?	<input type="radio"/>	<input checked="" type="radio"/>
Is welding equipment fitted with all necessary safety means and is it properly maintained?	<input type="radio"/>	<input checked="" type="radio"/>
Is suitable personal protective equipment used when working with a chainsaw (e. g., protective trousers, boots, gloves and helmets with visors and ear protectors)?	<input type="radio"/>	<input checked="" type="radio"/>
Are instructions for safe working practice available?	<input type="radio"/>	<input checked="" type="radio"/>
Is working equipment regularly inspected?	<input type="radio"/>	<input checked="" type="radio"/>
<b>TRANSPORT AND MOVING MACHINES</b>		
Are all operators of vehicles, fork-lift trucks or telescopic material handlers formally trained and certified in the safe operation of the machines they use?	<input type="radio"/>	<input checked="" type="radio"/>
Are fork lift trucks, telescopic handlers and their attachments regularly examined by a competent institution?	<input type="radio"/>	<input checked="" type="radio"/>
Is the farmyard organised for safe movement of vehicles?	<input type="radio"/>	<input checked="" type="radio"/>
Are tractor service brakes and hand brakes maintained and checked regularly?	<input type="radio"/>	<input checked="" type="radio"/>
Are trailer brakes effective and can they be operated from the tractor seat?	<input type="radio"/>	<input checked="" type="radio"/>
Are draw bar rings and pick-up hitch units checked regularly for wear?	<input type="radio"/>	<input checked="" type="radio"/>
Are seat belts installed and fastened if a machine might turn over?	<input type="radio"/>	<input checked="" type="radio"/>
Are old tractors fitted with a roll bar or a safety cab?	<input type="radio"/>	<input checked="" type="radio"/>
Are old cabs or roll bars checked for rust and strength?	<input type="radio"/>	<input checked="" type="radio"/>
Are head lights, indicators, brakes and tail lights functioning?	<input type="radio"/>	<input checked="" type="radio"/>
Are wing mirrors in place, maintained and kept clean on all self-propelled machines?	<input type="radio"/>	<input checked="" type="radio"/>
Is there a safe system of work in place for operations in close proximity to overhead power lines (OHPLs)?	<input type="radio"/>	<input checked="" type="radio"/>





**QUESTION**

**YES**

**NO**

**HEIGHT**

Is there a safe system of work at a height (buildings, machinery, equipment, reservoirs, etc.)?



Are all ladders reliable, suitable for heavy work and are they safely stored when not in use?



Are precautions taken to ensure ladder stability when using it to work at a height?



Have safer alternatives to a ladder for access to heights been considered?



Are bale stacks safely positioned, constructed and de-stacked?



**PESTICIDES**

Are all pesticides correctly stored?



Are all workers who work with pesticides regularly trained?



Has risk from pesticides to the health of workers and other people been assessed and have controls been implemented?



Is proper personal protective equipment used when working with pesticides?



Are pesticides used in a safe way for the environment?



**CHILDREN**

Are children prevented from gaining access to dangerous places (working activities, a path of moving vehicles, height, liquid storage, dangerous animals, etc.)?



Has the risk of children causing fire been minimised?



Are children warned about danger?



Are requirements for young people who work complied with?



**ANIMALS**

Have proper enclosures for keeping dangerous animals (e. g., bulls, pigs, horses, dogs) been installed?



Are enclosures kept in good condition and do they prevent access to animals?



Are proper means for animal handling and guidance used when working with animals?



Are proper means for animal transportation available and in good condition?



**BIOLOGICAL HAZARDS**

Are there any sources of hazardous biological agents at your farm (plants, animals and substances of animal origin, organic dust, waste, etc.)?



Has the risk of contact with hazardous biological agents been controlled or reduced?



Is there a safe system of work with hazardous biological agents?



## Part A: Does the hazard exist at the workplace?

YES – if you have ticked at least one answer in a field marked with

Please note that the list below does not cover all the possible cases in which there are hazards.

### QUESTION

### YES

### NO

#### LIQUID STORAGE

Are storage areas properly fenced in? Are fences in good condition?

Are proper covers of underground storage and tanks in place and in good condition?

Have suitable barriers been installed on loading ramps?

Are warning signs in place and in good condition?

#### DRY SUBSTANCES

Is there a safe system of working with dry substances (grain, fertilisers, sand, etc.)?

Is access to grain storage prevented?

#### BIOGAS

Are there any places where biogas can form and accumulate in your farm (slurry storage, enclosed places for animals, waste, wells, etc.)?

Is access to such places prevented?

Are fire protection measures used?

Is there a safe system of work in these dangerous places?

#### WEATHER

Are workers protected from exposure to high temperature, direct sun radiation, low temperature, rain and strong winds?

ADD YOUR NOTES ►



## Part B: Examples of preventive measures which can be used to reduce risk

### ALL HAZARDS

- Ensuring information, instruction and training of employees.

### MACHINERY AND WORK EQUIPMENT

- Ensuring that machines and work equipment are operated by trained and authorised workers.
- Ensuring that all guards of PTO drive shafts and other guards of machinery and work equipment are in place and in good condition.
- Making stands, blocks, hydraulic jacks, etc., available and easily accessible as an extra means for keeping raised equipment up.
- Using special wheel handlers, fork lifts or material handlers for handling large rear tractor wheels.
- Ensuring that the riving knife of a circular saw is properly installed and that push sticks and push blocks are used.
- Keeping welding equipment in good condition and using suitable eye protection.
- Using proper personal protective equipment whenever operating a chainsaw.
- Carrying out regular inspection and examination of machinery and work equipment

### TRANSPORT AND MOVING MACHINES

- Ensuring that vehicles, fork lift trucks or telescopic material handlers are operated by trained, certified and authorised workers.
- Introducing a one-way system for transport around the farmyard and a special turning area for vehicles (such as lorries); separating vehicles from pedestrians.
- Maintaining service brakes, maintaining and adjusting hand brakes and trailer brakes according to the manufacturers' recommendations.
- Regular checking for wear and replacing worn draw bar rings and pick-up hitch units.
- Ensuring that seat belts are fitted and fastened if it is possible that a machine might turn over.
- Providing safety cabs or roll bars in all tractors, and inspecting them regularly.
- Inspecting each item of lifting equipment regularly.
- Ensuring that wing and rear-view mirrors are fitted and in good condition.
- Ensuring that undamaged, correctly working lights and indicators are fitted in all tractors and trailed equipment and that they are kept clean.
- Creating a safe system of work near overhead power lines (OHPLs).
- Providing a map showing the location and height of OHPLs on the farm.

### HEIGHT

- Eliminating zones with height difference, if possible.
- Arranging appropriate fencing of dangerous places and keeping them in good condition.
- Installing warning signs in appropriate places.
- Using well-maintained ladders; securing them safely against movement.



## Part B: Examples of preventive measures which can be used to reduce risk

- Storing ladders safely and out of children's reach.
- Using properly designed cage platforms for work at a height, where fork lift trucks or a material handlers are available.
- Using mobile elevating work platforms, cherry pickers, tower scaffolds or equivalent (grain buckets or potato boxes should never be used as a work platform).
- Building stacks and de-stacking in a logical order to ensure a stable structure.

### PESTICIDES

- Eliminating the need to use pesticides.
- Using products that pose least risk to health.
- Washing sprayers carefully after use. Doing it far from wells, children and animals.
- Using correct personal protective equipment.
- Storing pesticides in proper storage secured against unauthorised access and marked with a clear hazard warning sign.

### CHILDREN

- Keeping children away from farming activities and work traffic.
- Providing a properly fenced play area.
- Stopping work when unsupervised children appear in the work area and taking them away.
- Installing warning signs in dangerous places and explaining their meaning to children.
- Telling children about dangers they should look out for, and about places they are not allowed to go to.
- Providing information, instruction and training to young people who work and supervising them.

### ANIMALS

- Feeding animals regularly.
- Arranging proper enclosures and ensuring their good condition.
- Installing warning signs in appropriate places.
- Providing appropriate means for animal handling and guidance, and ensuring proper use of them.
- Providing appropriate means for animal transportation and keeping them in good condition.

### BIOLOGICAL HAZARDS

- Eliminating sources of hazardous biological agents.
- Keeping the sources away from people.
- Arranging proper fences around dangerous areas and ensuring their good condition.
- Installing warning signs in appropriate places.
- Using disinfection measures.
- Vaccinating workers.
- Providing work hygiene measures.
- Using correct personal protective equipment.
- Ensuring regular health monitoring.



### LIQUID STORAGE

- Arranging proper fences around storage areas and ensuring their good condition.
- Ensuring good condition of covers of underground storage and tanks.
- Ensuring good condition of barriers on ramps.
- Installing warning signs in appropriate places.

### DRY SUBSTANCE

- Arranging measures preventing access to grain storage sites.
- Installing warning signs in appropriate places.
- Using light and sound signals to warn bystanders.
- Keeping unauthorised people away from the workplace.

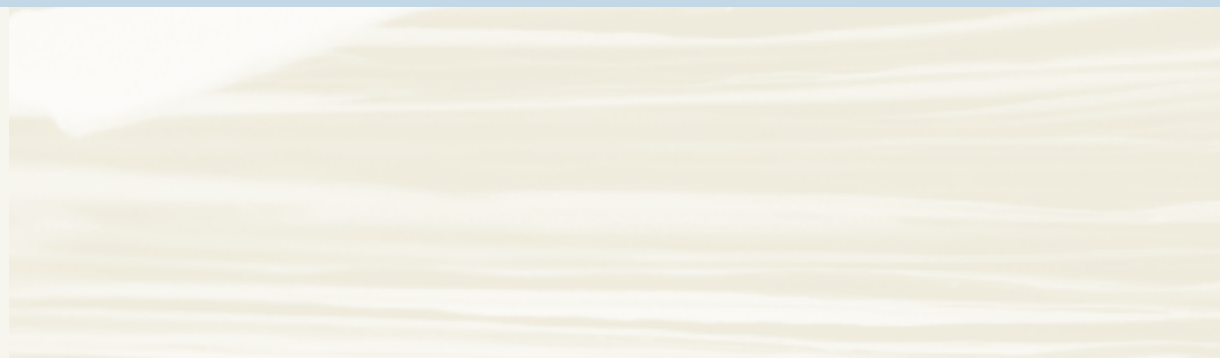
### BIOGAS

- Eliminating sources of biogas.
- Preventing or eliminating sources of ignition.
- Ensuring appropriate ventilation of hazardous areas.
- Arranging proper fences around hazardous areas and ensuring their good condition.
- Ensuring fire protection measures.
- Installing warning signs.
- Preventing working alone in hazardous areas.

### WEATHER

- Stopping work when the weather is dangerous.
- Arranging places with shade and water supply, for getting warm and dry.
- Limiting time spent outside.
- Using proper protective clothing.

ADD YOUR NOTES ►





## Checklist Small-scale Surface Mines

### Part A: Does the hazard exist at the workplace?

YES – if you have ticked at least one answer in a field marked with

Please note that the list below does not cover all the possible cases in which there are hazards.

QUESTION	YES	NO
<b>LANDSLIDES</b>		
Can materials, rock, etc., slide from the slopes in the surface mine?	<input checked="" type="radio"/>	<input type="radio"/>
Are there any unmarked, unwatched pits?	<input checked="" type="radio"/>	<input type="radio"/>
Are there any unsecured deposits, pit walls or excavations?	<input checked="" type="radio"/>	<input type="radio"/>
Is any face, side or bench worked in a way that causes unsupported overhanging or undercutting?	<input checked="" type="radio"/>	<input type="radio"/>
Is manual mining of the mineral or the overburden carried out simultaneously on two benches in the surface mine?	<input checked="" type="radio"/>	<input type="radio"/>
Do sudden changes of the state of the mine face happen during work?	<input checked="" type="radio"/>	<input type="radio"/>
Are vehicle routes to workplaces endangered with, e. g., sliding rock material?	<input checked="" type="radio"/>	<input type="radio"/>
Is the face or side wall over 1.5 m high, and not properly supported?	<input checked="" type="radio"/>	<input type="radio"/>
<b>WATER</b>		
Are there any water hazards in the surface mine?	<input checked="" type="radio"/>	<input type="radio"/>
Are there any water reservoirs near the excavations, not connected with the activity of the surface mine?	<input checked="" type="radio"/>	<input type="radio"/>
Is the free surface of water checked at least once every 6 months?	<input checked="" type="radio"/>	<input type="radio"/>
Is there any possibility that water from a nearby river or pond may find its way to the mine?	<input checked="" type="radio"/>	<input type="radio"/>
Are escape routes marked?	<input checked="" type="radio"/>	<input type="radio"/>
Are ditches choked?	<input checked="" type="radio"/>	<input type="radio"/>
May the amount of the rainfall in one day be higher than the 36-hour-output of the pumps?	<input checked="" type="radio"/>	<input type="radio"/>
Is the water inflow from the excavations bigger than the 24-hour-output of the pumps?	<input checked="" type="radio"/>	<input type="radio"/>
<b>TRANSPORTATION WORK</b>		
Do workers move along or across the paths of gangway conveyors?	<input checked="" type="radio"/>	<input type="radio"/>
Is the inclination of the excavations bigger than 4°?	<input checked="" type="radio"/>	<input type="radio"/>
Can the bailer of a machine or a loading device move above the driver's cab?	<input checked="" type="radio"/>	<input type="radio"/>
Can workers get in the way of vehicles?	<input checked="" type="radio"/>	<input type="radio"/>



## QUESTION

YES

NO

### EXPLOSIVE AND BLASTING

Are any explosives used?



Can storage facilities where explosives materials are stored cause danger to other structures in the mine?



Do areas surrounding storage facilities for explosive materials contain hazards that could trigger an explosion?



Do misfires occur during the blasting?



Can an explosive be inserted into choked blast holes?



Are any tools which may cause sparking used while charging blast holes?



Are there any explosives not being used stored near blast areas?



Are there any failures in the system of signalling before blasting?



Are detonators and explosives stored or transported together?



Does work take place in the area towards which dust and gaseous products from the blast move?



ADD YOUR NOTES ►



## Part B: Examples of preventive measures which can be used to reduce risk

### LANDSLIDES

- Fencing the areas of excavations, dumping grounds, mine waste dumps or unstable mining terrains.
- Marking dangerous sites with warning signs.
- Ensuring suitable height of scarps and slopes during mining work, depending on the geological conditions and the properties of the rock.
- Applying a benching (terraced) system instead of having a steep pit wall.
- Keeping the slope of loose ground or decomposed rock at an angle (of not more than 45°) that ensures stability.
- Protecting and marking the upper and lower edges of dangerous wall sections.
- Preventing, at all cost, any face, side or bench from being worked in a way that causes unsupported overhanging or undercutting.
- Protecting walls and side walls by means of protective nets.
- Carrying out scaling from a safe location.
- If possible, carrying out scaling from the top of the working face downward.
- Using a scaling bar of suitable length and construction.
- Constant monitoring of the state of the mine face.
- Storing the overburden only in designated places, further than 3 m from the working edge.
- Where the undercutting of a working face is essential, properly installing sufficient means of support (e. g., sturdy wooden props) to prevent overhanging material from collapsing.

### WATER

- Disposing unnecessary water reservoirs (if possible).
- Keeping safety pillars for neighbouring water-courses.
- Checking regularly the mine drainage system.
- Determining (by the dispatcher) the way of leaving workplaces in case of a water hazard.
- As far as possible, arranging mine work so that water is discharged naturally (e. g., into lower abandoned areas).
- Channelling incoming water down the slopes to collection points to protect the slopes of surface mines. Where necessary, installing water pumps at such collection points.

### TRANSPORTATION WORK

- Choosing and creating safe passages for crew members above conveyors.
- Equipping conveyors with safety devices protecting excavated material from the falling.
- Introducing a ban on manual transport on carriages in excavations whose inclination is above 4°.
- Introducing communication and signalling for the workers of transportation squads.
- Determining in which types of cabins the presence of workers is forbidden during loading.
- Equipping loading platforms with barriers preventing carriages from rolling down.
- Introducing obligatory inspection of ropes and mechanisms of the cableway at the beginning of each working shift.





### EXPLOSIVES AND BLASTING

- Using non-combustible, fire-resistant and non-sparking materials to build explosive material storage facilities.
- Electrically grounding explosive material storage facilities when they are made of metal.
- Placing ventilation holes in the upper and lower part of the building to control dampness and excessive heating.
- Putting appropriate warning signs that indicate the contents of the storage facilities.
- Installing correct safety devices preventing unauthorised people from getting inside.
- Ensuring that detonators are not stored in the same storage area as other explosives, unless they are kept in a separate compartment.
- Ensuring that areas surrounding storage facilities for explosive materials are clear of rubbish, bushes, dry grass or trees within a 10-m radius.
- Ensuring that there are no other combustible materials (e. g., gasoline; diesel) stored within a 20-m radius of the magazine.
- Ensuring that the entrance to the blast area is forbidden for 30 minutes after each blast.
- Checking if there are any misfires.
- Checking blast holes for obstructions which should, as far as possible, be cleared.
- Not pressing forcibly explosives into a blast hole, for any reason.
- Placing explosives into blast holes only by means non-sparking equipment, such as bamboo-type charging rods.
- Using fine sand in small paper packets or clay “noodles” as tamping.
- Placing unused explosive materials in a protected location, as soon as practicable after charging is completed.

ADD YOUR NOTES ►





ADD YOUR NOTES ►





## Where to obtain further information

### **European Agency for Safety and Health at Work**

Gran Vía 33, 48009 Bilbao – Spain, tel.: +34 94 479 43 60, fax: +34 94 479 43 83

e-mail: [information@osha.europa.eu](mailto:information@osha.europa.eu)

<http://hwi.osha.europa.eu>



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