

ADVICE AND SUGGESTIONS TO WORK IN SAFETY



SAFETY

At Work!

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SAFETY *at work!*

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Introduction

Legislative decree 626/94, modified by legislative decree 81/08, which reorders in a single organic text all norms and dispositions concerning safety and health for workers, is designed to supply guidelines to define a “prevention system” in workplaces.

This system, to function effectively, requires first of all a full consciousness of the problem of safety at all levels, so that prevention and protection from risks activities will not be alien to and far removed from everyday work realities, but will instead be an integral part of ordinary work organization.

In the field of safety on the workplace it is necessary to make employers aware of safety “as an investment and not as a cost” (industrial injuries imply extremely high socio-economical costs). Workers, on the other hand, should no longer be considered passive figures who merely follow the instructions they are given, but real active subjects whose abilities and knowledge are indispensable to the achievement of a valid system finalized to health and safety on the workplace.

Considering, furthermore, that “safety on the workplace” must become a prerogative for everyone and that the joint statistical survey by ISTAT (the Italian National Institute of Statistics) and INAIL (The Workers Compensation Authority) carried out in 2010 has highlighted that out of 4 million foreign citizens present in Italy (approximately 6.5% of residents) over 3 million are workers insured by INAIL and found that 16.4% of injuries occurred to immigrant workers, it has been considered an absolute priority to spread, especially among non-EU workers, some principles, even the most basic, of safety on the workplace in order to increase the abilities of everyone in the field of self-protection and social solidarity.

CONSTRUCTIONS



The building trade would appear to be immune to crises as far as the tragic numbers of work fatalities is concerned: 196 dead reported in 2009, up 3% compared to 2008.

In almost the totality of cases the victims are men aged 35 to 49. Approximately 21% of injuries and one fatality out of six in this sector involves workers of non-Italian origin.

In the constructions business the most common cause of injury regards the total or partial loss of control of operating and/or transportation equipment (29%), followed by falls (25%), with falls from high altitudes representing 9% of accidents, confirming the high risk of falling from altitudes and the common occurrence and seriousness of the consequences of such accidents.

Not to be underestimated are also those “do it yourself” activities that individuals often think they can handle alone. Even ordinary maintenance, apparently easy to carry out, may conceal mortal hazards.

FALLS

Men employed on building sites often work at high altitudes on a daily basis. To guarantee safety and prevent falls from high altitudes, not only of workers but also of materials that may injure or damage persons or objects in the building site area, personal and collective protective equipment is used. Collective equipment used when working at high altitude consists of the "temporary structures", set up according to specific legal characteristics and which include facilities such as scaffolding and parapets.

When working at high altitude it is indispensable to use the required personal protective equipment (PPE, Dispositivi di Protezione Individuale, DPI in Italian) correctly. It is necessary to use safety belts or slings and adequate safe anchor points. For the use of such equipment it is mandatory to follow specific training courses.

When working on roofs it is mandatory to set up boards to use as a walkable platform; it is advisable, furthermore, to set up a safety net or bridge below the roof.

If scaffolding is used, always use steps to go up. Avoid climbing.

In building sites, to limit risks due to falls of material from high altitudes, it is necessary to prevent access to strangers by bounding off the works area. For scaffolding, it is recommended to install guard protection fans or safety nets.

Building workers, to work on the ground or inside buildings, use staging or trestle scaffolding. To limit the risk of falls, make sure the scaffolding or trestle scaffolding are resting on a solid stable surface using the appropriate bases.

Before using staging the wheels of the bridge must have been previously blocked with the appropriate wedge. Avoid moving bridges when they are overloaded or when workers are present on them.

Use ladders correctly and avoid using defective ones or ones with worn out parts. To avoid slipping, make sure the lower extremities of the ladder are provided with anti-skid material and the upper extremities with retaining hooks or anti-skid supports.

CAUTION

Scaffolding must always be accompanied by a booklet bearing a full description, instructions, diagrams for assemblage and conditions of use. The booklet must always be present on the building site. Scaffolding must be kept in efficiency and undergo ordinary and special inspections, especially after adverse weather conditions. Scaffolding assemblage, disassembling and transformation operations can only be carried out by specialist personnel and under careful inspection by a person responsible nominated to this end.



Lack of attention on the workplace can have serious and even fatal consequences.

MOBILE WORK EQUIPMENT

Superficiality, neglect and not following the most elementary safety rules are the main causes of accidents with more or less serious consequences that involve workers responsible for using mobile or semi-mobile work equipment.

When this type of equipment is used in a building site, it is required to follow circulation rules, which must be established by the site's safety manager.

If mobile equipment for the transportation or use of workers is used, such as elevating work platforms, make sure that it is used exclusively in safe places and that the speed of the equipment is adequate.

It is necessary to check that no workers are in the operating area of the semi-mobile work equipment or, if their presence is necessary, that they are not in danger of undergoing damage due to the equipment's movements.



Workers must use equipment according to the information and training they have received, they must not make any changes to the equipment and must report any irregularities or malfunctioning they may notice to a superior in charge.

Drivers of mobile work equipment must wear correct work gear. Usually recommended are overalls allowing complete freedom of movement and light shoes with rubber soles.

It's recommended, when using aerial platforms, to store work tools and all other utensils in such a way that they will not fall and cause accidents.

CAUTION

Implementing all safety measures and precautions listed in the equipment manufacturer's user manual reduces the risk of accidents and injuries.



LOAD LIFTING

In a building site or in a port area the most disparate materials are constantly being moved and lifted. The transportation and lifting of these materials can be carried out either with specific equipment or manually.

Before using loading equipment it is recommended to carry out a preliminary survey of the area where operations will be taking place, verifying that the terrain guarantees the equipment's stability and that the minimal safety distance from overhead power lines is respected.

To reduce risks, it is recommended to check that lifting accessories are efficient and have not undergone any damage and to check the state of wear and tear of ropes, hooks or chains; periodically verify lifting systems and refrain from using any that reveal anomalies.

Choose lifting accessories according to the loads to transport. Always make sure that slings are efficiently attached around the loads and that the



loads are in good balance before carrying out any other operation. Avoid manoeuvres that may cause collisions between loads or between elements of the equipment.

When using equipment, be careful not to move loads in work areas or transit areas. Workers waiting must be careful not to do so underneath suspended loads and they must be in a condition to manually hitch or release a load in absolute safety.

Manual handling of loads (MHL)

This term indicates all operations that one or more workers carry out to lift, transport, move, push, pull or put down a load. It is immediately clear that in MHL adopting an adequate posture and correctly estimating the weight of a load are matters of crucial importance.

To lift loads correctly, avoiding to excessively strain your vertebral column, it is necessary to remember to bend your legs while keeping your back straight and keeping your feet well planted to the ground. The weight to lift, furthermore, should be as close as possible to your body.

Failure to follow simple rules when handling loads, however heavy or light, can lead to serious pathologies of the human musculoskeletal system.

CAUTION

If using slings with metal cables, correctly use the specific PPE (protective gloves, safety footwear and helmet). In addition, if lifting accessories are used, make sure that the CE mark is always visible and that the name of the manufacturer and the maximum supported load warning are legible. The frequency and duration of a movement, the conditions, the height from the ground or the height of arrival of the weights to lift, the rotation of the torso or the vertical moving of the load are all factors that affect or contribute to accidents and injuries connected to MHL.

USE OF MACHINERY

Many different types of machinery are used on a construction site and just as many are the different types of possible injuries connected to their use. Each machine poses specific risks (electric risks, noise, contact with part of the machinery, risks of amputation or crushing of limbs and so on). It is important, therefore, to know the machines well so as to adopt adequate prevention behaviour.

Only use a machine for the type of activity it has been designed for. Do not remove protection from a machine and immediately report any anomalies in its functioning or any other dangerous situations.

A very good habit is to check the correct functioning of the on/off switch or of the emergency button, the integrity of power cables and the efficiency of all safety mechanisms.

Working near an operating machine presupposes the knowledge of rules to operate in safety. Workers should be aware that such knowledge safeguards their safety and that of their colleagues.

When using a mixer, for example, be careful, during loading operations, not to put your hands, the paddle or other utensils inside the barrel. Use work overalls with no fasteners, pockets or anything else that could get caught up in the machine's gears and make sure the machine is completely motionless before carrying out any cleaning operations.

CAUTION

Every machine comes with an instruction booklet for use and maintenance and this gives all useful information for a correct use about the risks involved, the safety measures to adopt and the mandatory PPE. Follow the rules supplied in the booklet also for all maintenance operations and consult it in case of any doubts on the correct use of the machine.

In the use of equipment such as iron bending machines it is necessary to be careful not to approach any moving parts of the machine with your hands and it is necessary to wait for the machine to come to a complete halt before regulating it or cleaning it.

Equipment that presents multiple risks are circular saws. Remember to keep your hands well away from the blade and to never abandon your work station while the machine is still functioning, to limit the risk of cuts or amputations. Before proceeding with cutting verify that the blade's protection system is inserted. Use a substitute device to cut smaller pieces.



Working near an operating machine presupposes the knowledge of rules that will help you to work in safety. Workers should be aware that such knowledge protects their safety and that of their colleagues.



ELECTRIC RISKS

In a construction site electric power is employed to the maximum. This mass use exposes workers to a whole range of risks. In Italy, since the nineties, a legislative path has been started which culminated in decree 37 of 22 January 2008 – regarding safety norms for electric systems – which stated once more that the installation of electric systems and appliances on the workplace are required to satisfy precise legal norms and be installed by qualified and certified personnel.

Awareness and knowledge increase attention levels on the workplace and help operators to prevent possible risks linked to electricity.

Dangers linked to electricity are due to a direct or indirect contact. Direct contact occurs when two open wires are touched. Protection against direct contacts consists of isolation, containers and barriers.



Indirect contact occurs when parts of a device are touched that, because of an internal failure that has compromised isolation, undergo tension. Protection against indirect contacts consists of “life-saving” residual-current circuit breaker switches.

ACS board

All construction sites – from the smallest that only carry out basic maintenance or restructuring, right up to medium and large-sized ones – must always be equipped with “Assemblies for Construction Sites” (ACS, Assiemati di Serie per Cantiere, ASC in Italian) boards. These distribute electric power for the various needs of the site.

ACS boards are essential safety components, they are not the job of ordinary electricians and must therefore be purchased already assembled, tested and certified by the manufacturer.

Sockets, considering the special work conditions in a construction site, must be used according to precise and strict norms stated by the law. In particular, they must be protected against overcharging with the use of specific safety switches.

CAUTION

The most common cause of injuries in construction sites depends on failures to electric equipment. It is necessary, therefore, that the equipment be used correctly, scrupulously following the manufacturer’s indications. In addition, it is recommended to immediately report any malfunctioning or fault you might notice.



Electric systems on the workplace must be installed by firms that issue a certification stating that the system conforms to decree law n. 37 of 2008.

VIBRATIONS AND NOISE

The progressive development of the mechanical industry, the increased power of the machinery, the growing and ever more widespread use of vibrating equipment exposes workers more and more frequently to loud noises and vibrations, with more or less damaging consequences to personal health.

VIBRATIONS

We distinguish between two types of vibration: those involving the entire body and those only involving specific parts of the it.

To reduce the level of vibrations from machines or other equipment, it is recommended to employ advanced models which have systems that absorb vibrations and to always keep them in a good state of maintenance. The use of PPE also contributes to a reduction of the effects of vibrations on the parts of the body involved.

The consequences on the hands and arms of vibrations suffered without the adequate precautions include wanes and pain in the fingers, formication, pains in the articulations of the hand, the wrist, the elbow and the shoulders. The consequences of being exposed to full body vibrations without the correct precautions can include pains in the back and the cervical vertebra.

NOISE

Noise can be more or less defined as a sound that negatively influences workers' physical and psychic health. Noise, even though it doesn't have visible

or immediately noticeable effects, can lead to irreversible damage to hearing (a lowering of the auditory threshold up to complete deafness) or to damage of a psycho-physical nature.

Lowering noise levels at source until they reach acceptable values is a priority to reduce risks. Useful actions include, for example, correct maintenance or an adequate isolation of the appliance.

In addition, to lower the intensity of noise, specific PPE, known as ear monitors, can be used. This includes earplugs (or inserts) and earmuffs.

CAUTION

Legislative Decree 81/08 specifies what should be intended by risks deriving from vibrations both for the whole body and the hands and arms system; the daily limit of hours for exposition to vibrations; what the values of action and exposition to noise and vibrations are before obligations provided for by the law come into effect.



Risks deriving from vibrations and noise are usually underestimated. To prevent serious damage to workers' organisms, always use specific PPE and respect the exposition limits as stated by the law.

DEMOLITIONS AND RESTRUCTURING

An important activity on construction sites is demolitions. It is absolutely clear, even to non-experts, that a careful and accurate analysis of the area or of the building in question and the adoption of suitable preventive measures can help to highly reduce risks connected to demolition activities.

After verifying the state of conservation and stability of the premises to demolish, act with caution, proceeding from top to bottom and paying attention not to compromise the supporting structures.

Clearly mark off the entire area affected by the demolition with appropriate danger signs and prohibit access to all unqualified personnel with special blockages.

Avoid throwing material from high altitudes, but use the special tubes. If it is necessary to break brickwork, concrete or other remains, make sure to wet them with water first. Make sure all collective protective equipment (CPE, Dispositivi di Protezione Collettiva, DPC in Ital-

ian) specific for the situation in question is ready and available; always use all personal protective equipment (PPE) and mobile equipment.

CAUTION

ASBESTOS: a special case

Asbestos is a mineral often found in nature and which was once heavily employed in constructions thanks to its characteristics: it resists to high temperatures and it is a very good thermic and acoustic isolating material. However, asbestos fibres, when dispersed in the air and breathed in by man are **cancer-inducing**.

Currently, the use of asbestos in constructions is forbidden by the law and premises containing the material must undergo maintenance or decontamination interventions.

All interventions concerning structures where asbestos or its derivatives are present must be carried out exclusively by firms belonging to a professional organization specializing in such tasks.



No decontamination or removal of materials containing asbestos can be carried out by generic workers employed by the contractor. Tasks of this kind must be assigned to specialist firms.

AGRICULTURE



The entity of the work accidents phenomenon in agriculture has induced the European Commission to declare it a "high-risk sector," both from the point of view of frequency and of the gravity of accidents.

Accidents involving agricultural operators are often determined by a combination of concomitant factors, such as work environment (inclination of the terrain, encumbrances and obstacles in paths and so on), the characteristics of agricultural operators (lack of professional qualifications and experience, physical and psycho-physical fatigue, under-estimation of risks), agricultural machinery (ageing, deterioration and lack of maintenance and/or substitution of out of order protective appliances).

Within "agricultural accidents" particularly relevant are "professional diseases" (in 2009 up by 16% compared to 2008) linked both to work environment and commonly used materials and tools.

The following pages will consider some of the most frequent accidents, offering advice on how to avoid being exposed to danger, thus reducing the probability of injuries.

TRACTORS

Tractors are motor vehicles that can be used as traction (or thrust) force, as rotating shafts (to use coupled with other agricultural tools and machines) or as a source of hydraulic energy to command or support operating machines.

From an examination of statistical data it is easy to see that in agricultural work the most common accidents, often mortal, are linked to the use of tractors: the knowledge of dangers connected to their use and the employment of adequate individual protection tools can help agricultural operators to reduce exposure to risks.

Overturning of the vehicle

One of the most common accidents is the overturning of the vehicle (capsizing on one side), which can be caused by abrupt manoeuvres in difficult situations, by an overloading of the tractor or the unbalancing of the load.



To reduce the risks of capsizing while driving a tractor it is necessary to pay extreme attention when steering, especially in correlation to the stability of the terrain.

Downhill, especially if the vehicle is fully loaded, use low gears and do not use the clutch.

Always use high quality wide tread and low pressure tyres. When working on hilly or wet ground, choose tracked tractors.

CAUTION

For a good functioning of your tractor, regular periodical maintenance and checks are required.



TRACTORS/2

Various types and models of tractors are available on the market, according to work conditions and power required. There are models with rubber tyres and tracked (or caterpillar) models. Your choice will depend on the conditions of the terrain and the kind of work required.

Even if tractors are designed and manufactured for use away from normal roads, it is necessary to assess driving modes in relation to the conditions of the type of countryside you work on. Indeed, an excessive sloping of the terrain or the presence of differences in levels, of liability to subsidence of holes, as well as the towing of excessive loads, can cause the rearing up of the vehicle (backward overturning).

To avoid this type of accident it is crucial to for the front counterbalances to be those recommended by the manufacturer.

The speed of use has to maintain the necessary safety in relation to the conformation of terrain the tractor will be operating on. In ad-

dition, it is indispensable to verify and follow the inclinations prescribed in the vehicle's "instructions and maintenance booklet", to make sure that the load does not exceed the maximum towing allowed and that materials be distributed uniformly so as to maintain the tractor's stability. Always use trailers with braking systems.

CAUTION

Only use tractors provided with a protective driver's cab or a protective chassis (for tractors registered before 1974). For the driver's protective cab to be efficient the seat must be provided with certified safety belts.



Do not use tractors for transportation if they are not specifically designed for that purpose.



DAMAGE AND LESIONS

Pay maximum attention when the vehicle is proceeding uphill or downhill: footboards soiled with mud could cause you to slip or fall. It is recommended to hold tightly to the handles when proceeding uphill or downhill, to keep the footboards clean and free from mud and to always use anti-slip footwear.

Some of the most serious lesions also include those caused by the cardan shaft and/or power take-off. For this reason it is important to:

- check that the power take-off and the cardan are protected with the suitable casing;
- wear work clothes with no belts or similar accessories that could get caught in operating mechanisms;
- avoid operating near the power take-off when it is moving and, above all, remember that if the cardan breaks it can supply pro-



jectile force to materials and these could cause very serious lesions.

To avoid “false starts”:

- start the engine only when you are in the driving seat (never from the ground!) and after activating the hand brake;
- when the vehicle is at rest, not only activate the hand break, but also always take out the keys, this to avoid an accidental activation of the commands by subjects not qualified to drive.

Finally, because people working in proximity of the vehicle, whether it is moving or at rest, are not free from risk, during manoeuvres always check that there are no people in the immediate proximity and always use the acoustic warning signal.



Though multi-purpose vehicles, tractors are not suitable for transporting passengers: you may only transport one passenger, and only if the vehicle is fitted with an extra seat to that purpose.



CAUTION

FIRE HAZARD spillage of fuel

Always refill the vehicle in a safe place, far away from sources of heat and with the engine off. Do not smoke while filling.

CHAINSaws

Chainsaws, because of the conditions of instability they are often used in and of the proximity of users to the cutting chain, can cause serious injuries. Chainsaws must be provided with an automatic return safety accelerator which, when released, stops the chain, while the exhaust must be protected with metal grids to prevent burns.

When starting the chainsaw:

- always use protective gloves;
- remember that the correct position for starting the chainsaw is on the ground with the chain brake on;
- hold the chainsaw firmly with both hands.

During use:

- use the chainsaw below the shoulders;
- always work with the blade part in proximity of the engine, never work with the tip to avoid violent kickbacks;
- avoid the blade touching nails or stones, this could cause the

chain to break, making the chainsaw rebound;

- wear the necessary personal protection gear to protect yourself from noise, vibrations, inhalation and/or direct contact with wood dust;
- use safety signals when necessary;
- always use in stable positions.

CAUTION

When using a chainsaw it is extremely important for the user to scrupulously follow all indications in the instructions manual and to be in top physical condition with ready reflexes.



Choose the position and the place of use of the chainsaw with care to avoid dangerous and potentially serious consequences.

AGRICULTURAL MACHINES

Various machines are used in agriculture. Among these motor hoes and hay tedders most commonly cause injuries to workers.

Motor hoes

These are two-wheel single-axle tractors driven standing with a stilt (handle). Its working organs consist of rotating hoes.

Accidents caused by motor hoes always cause very serious lesions, particularly the amputation of the lower limbs. For this reason, users driving the machine must always protect themselves from any contact with it.

Only use motor hoes with a casing protecting the cutter (NEVER REMOVE IT!) and with an automatic device blocking the machine when the stilts are abandoned. Also make sure that the machine is fitted with a device preventing the stilt from functioning when in reverse gear.



Motor hoes must only be used by responsible trained personnel authorized to use the machine. Use by persons under the age of 16 is forbidden.

Hay Tedders

When using these machine it is necessary to protect yourself from accidental contact with the working parts. When the machine is in working position all utensils must be protected both in the front area in the direction the machine is moving and on both the sides.

An appropriate protection device is a distance bar, which must guarantee a horizontal distance of at least 150 mm from the moving parts.

After finishing work, the machine must be disconnected from the tractor (following the manufacturer instructions in the user and maintenance manual) and put into safety position, with the external rotators lifted.

The rotators can be directed towards the inside of the machine by reversing them; they can be protected laterally by a distance bar; they can be protected by barriers placed on top of the lateral outer ends.

CAUTION

Make sure the gas exhaustion is positioned so that the emissions will be directed well away from the worker and that the muffler is equipped with a thermally-insulated protective casing.



PRUNING AND FRUIT PICKING

A commonly used tool for pruning is a string trimmer, an engine drive utensil which, thanks to the possibility of regulating the power and to its various accessories, can be used to cut grass, clean the undergrowth, eliminate brushwood, cut young thin trunks. It is important to bear in mind that various dangers are connected to the use of string trimmers, from cuts to burns and/or lesions due to contact with fragments and/or projected materials.

Pruning

- Always use adequate personal protection for your eyes, head and legs;
- make sure the muffler is equipped with thermo-isolated protective casing and that the machine is equipped with an automatic stop device;
- direct the gas exhaust pipe in a way that emissions will not be directed towards the user;
- always check that the fuel tank is in perfect conditions, to avoid any fuel being spilt during use.



To use string trimmers the PPE recommended by the manufacturer is mandatory, especially for the eyes. Adequate clothing and the use of rubber boots are also highly advisable.

Fruit Picking

During fruit picking operations a lean-to ladder is commonly used:

- always check the ladder before using it;
- always use anti-slip footwear;
- always lean the ladder firmly to the branch and if possible ask a co-worker to hold it for you at the bottom;
- avoid working in conditions of precarious balance.

CAUTION

All machines with a kerb weight above 7.5 Kg and all string trimmers with a saw blade must be equipped with a chain sling on both shoulders. The chain sling on both shoulders must be equipped with a rapid unfastening mechanism and padding at hip level.



ELECTRIC RISKS IN FARMING BUSINESSES

The use of electric power can expose people, animals and objects to risk. In a farming business the individual environmental conditions can increase risks, i.e. exposure to danger.

Particular attention must be paid to the electric systems of buildings devoted to animal rearing (cattle sheds with milking facilities, piggeries, sheepfolds and so on) and buildings used to stock fodder and feedstuff, where fires and/or explosions are more likely, together with the risk of electrocution due to the presence of liquids and fluids,



even pressurized, that can have chemically aggressive effects (disinfectants, acids, animal excrements...).

In addition:

- Check that electric cables do not interfere with the passage or stationing of animals;
- use extensions with flexible cables made of neoprenic rubber;
- avoid accumulating combustible powders near switchgear;
- always avoid "do-it-yourself" activities on electric parts in tension.

Repair and/or maintenance work must always be carried out by specialized and qualified personnel.



Electric systems must be equipped with earthing/grounding and residual-current "life-saving" devices.

CAUTION

ANIMAL SHEDS

Animal sheds (stables, piggeries, cattle sheds and so on) usually have slippery floors: a constant danger is, therefore, slipping and falling, with consequent lesions.

Equip floor surfaces with ribwork; use anti-slip footwear; keep floor surfaces clean.



DOMESTIC WORK



We tend to associate the risk of accidents more to a specific work activity or to means of transport. For most of us the domestic environment appears a safe place. But in actual fact homes also “conceal” dangers and domestic accidents can have very serious consequences on our health. The incidence of the risk is directly correlated to the time we spend between domestic walls and to the type of activity we carry out there.

According to a survey carried out by Censis in 2009, 44.3% of domestic workers declared to have had a work-related accident in the previous year; 11.2% declared to have had more than one. With reference to the previous three years the percentage goes up to 61.2, while if a person's entire professional life is considered the percentage goes up to 70.5.

The most common cause is actions that are not only wrong but “risky” too. Though chance, fatigue and physical indisposition are important factors, daily actions, often considered harmless, often lead us to underestimating all the sources of risk that exist in our homes.

It is therefore necessary to pay special attention to how to behave in various situations.

FALLS AND CRASHES

The structural characteristics of homes (stairs, floor, furniture, etc.) can originate falls and crashes. In addition, working in an environment that the worker is basically a stranger to (most domestic workers constantly work in different environments, usually just for a few hours and carrying out different jobs), tends to lower confidence and attention, elements crucial to the safety of the worker.

To protect yourself from falls:

- use stable supports for activities that require reaching heights (window cleaning, rearranging tall wardrobes and so on);
- avoid leaving chairs or other furniture children may be tempted to climb on in the proximity of windows;
- avoid waxing floors excessively. Antiskid brands of floor wax are recommended;
- be careful not to slip on mats and carpets, especially if they are not equipped with an antiskid net.



Constant attention, even when carrying out apparently innocuous tasks, will allow you not to underestimate the sources of risk present in a home.

To protect yourself from crashes:

- be careful not to leave objects on the floor;
- move carefully when working near glass doors, isolated columns and sharp corners;
- close drawers after use.

CAUTION

Even though the most common accidents are falls or slipping, very few domestic workers claim they take precautions to avoid them (only 25.8% use antiskid shoes and only 34.1% make sure someone else is present in the home before climbing ladders or carrying out other dangerous tasks); though inattentiveness is the main factor of risk, very few domestic workers (32.1%) refrain from carrying out certain tasks if they are feeling particularly fatigued (Censis survey 2009).



BURNS AND CUTS

Certain behaviours, such as improper use of tools and utensils, can lead to burns and cuts. Just think that cooking activities are the second cause of domestic accidents and that the use of knives produces the highest percentage of lesions among accidents of this type.

To protect yourself from burns:

- place pots and pans on stoves with the handle pointing inwards;
- pay special attention to the oven when in use, if it is placed at floor level and especially when the oven door is open;
- if cooking oil catches fire in a pan, keep calm and cover the entire pan with a lid. Never try to put out the fire with water, as this could lead to burns and could spread the flames to the surrounding environment;
- periodically check the good working condition of safety valves on pressure cookers; it is recommended to respect the maximum quantity signal on pressure cookers and not to use them on too high a flame, because they could explode, with a violent rupture of the lid and the discharge of boiling liquid.

To protect yourself from cuts:

- make sure the handle of the knife is dry and clean before using it, to avoid it slipping from your hands. After use, do not leave the knife near the worktop or on other shelves from which it could fall. During use the point of the knife must be directed away from you,

never towards your body, your arms or hands;

- take care when washing knives by hand: soapy water may hide them from your sight, favouring accidental cuts. Put knives back with the blade pointing downwards in the provided compartment or space of the drawer;
- take special care when using all small kitchen appliances with blades (scissors, food mixers, tin-openers and so on).

CAUTION

Never put your hands into food mixers, meat-mincers, food processors or slicing machines without having first disconnected the appliances from the electric mains and waited for the movement of sharp parts to have come to a complete halt. If you have any doubts on the use of a particular appliance, always refer to the relevant instruction booklet.



Never use water to put out oil flames, as this only produces the opposite effect with the risk of burns and spreading of the flames to nearby objects.



ELECTRIC RISKS

The human body is an effective conductor, which means that an electric current can easily run through it. When the human body comes into contact with any element that is in tension an electric current travels through it and discharges towards the ground passing through the feet. In conditions of dampness, the human body's resistance is lower and the risk of electric shock higher.

- When you use a clothing iron, take care not to fill the boiler of steam models while the instrument is plugged into the electric mains and in tension, even if it is switched off, because the water could wet a non-isolated or worn out wire resulting in a power leakage. Never iron bare-foot or with wet hands, because if the



isolating parts are worn out (e.g. the cord of the clothing iron), your bare feet and wet hands would facilitate the passage of the electric current through your body;

- possibly use footwear with isolating (rubber) soles and make sure your hands are dry when using a hair-drier or other small home appliances;
- periodically check that the power cables on your electrical appliances (clothing iron, vacuum-cleaner, polishing machine, etc.) are in good condition. In addition, after use, switch off the appliance and unplug it, avoiding to pull the power cable;
- avoid leaving electric components in tension within the reach of children;
- make sure electric cables in tension are not touching wet or damp floors;
- place lamps and electrical equipment where they

are protected from sources of water. In any case, no electrical appliances (grills, razors, hairdryers, food mixers) can be used near water.

CAUTION

Report to your employer any problems concerning the electric system. All electric systems, as well as being installed by authorized firms that certify the system as being “up to standard” and issue a declaration of conformity, should also be maintained in good working order by qualified firms. Even a simple failure should always be dealt with by qualified staff.

24.7% of domestic workers declare they habitually use electrical appliances with wet hands or feet; 44.4% carry out small electrical repairs without caring to turn off the power supply; 38.3% use new appliances without reading the instructions, 10% turn off electrical utensils by pulling the power cable and 7.6% forget the clothing iron on (Censis survey 2009).

DANGEROUS SUBSTANCES

The chemical products we habitually introduce into our homes (detergents, drugs and so on) require caution and care in the way we use and keep them. The labels and safety data on the containers help us know what substances we are actually using and, through the symbols used, the possible dangers connected to their use. It is therefore recommended to:

- avoid leaving the products out of place or unattended and to always put them back in their designated places after use, especially if children are present at home;
- scrupulously follow the instructions supplied by the manufacturer concerning doses and modes of use and do not mix different products together, in order to avoid causing undesired chemical reactions that may be dangerous for the organism;



Take care to dispose of chemical products properly and do not mix them with ordinary litter. As for medical drugs, always check the expiry date and if they are expired dispose of them in the special containers that you can find, for example, in pharmacies.

- Take care to store similar products together (for example: inflammables with inflammables) so as to avoid any mistakes when choosing and using them. In addition, it is necessary to store them in their original containers, without pouring them in alternative receptacles;
- medical drugs also belong to the dangerous substances category and must be handled with equal care.

CAUTION

The label and safety data we find on the containers give us information on the substances used and the dangers connected to improper use. On every label, or directly on the container, specific symbols warn of the specific dangers connected to the product being used, for example whether it is corrosive, toxic, inflammable, and so on.



INFLAMMABLE GASES

Combustible gases for domestic use are methane and LPG. These gases are a potential hazard and a lot depends on the way they are used.

To light stoves with matches make sure to follow these steps in the right order:

- light your match, bring it to the burner, open the gas tap;
- in absence of a modern safety system that blocks the gas supply in case the flame is extinguished, always check the stove during use, making sure it does not go off;
- periodically check that the rubber tube connecting the LPG cylinder is well away from sources of heat, that it does not curve too tightly, that there are no blockages and that it is well fastened at both ends. Periodically check the metal tube connecting the methane to the appliance, because with time it tends to break. In all cases, these tubes should be replaced every 4 years by qualified installers. Tubes with the label IMQ-UNI CIG bear the last year of possible use ("to be replaced before...").

Methane is odourless, colourless and flavourless. Before being distributed to domestic networks it is therefore blended with a chemical compound that gives it its characteristic 'smell of gas', so as to make its presence in the environment perceivable and making it less hazardous.

If you smell gas:

- do not light any flame and do not use any objects that may produce sparks (electric switches, bells and buzzers, telephones and so on);
- immediately open doors and windows to air the room where the presence of gas was noticed;
- turn off, if possible, the gas tap and the tap on the gas counter or cylinder;

- go back into the place where the gas leak took place only once gas can no longer be smelt.

CAUTION

Report to your employer any problems connected to gas apparatus. For new systems or the reconstruction of systems and for any intervention on apparatus and systems fuelled with inflammable gases it is necessary to employ qualified installers.



CHEMICAL RISKS

According to ISTAT a broad range of products belong to the Chemicals sector: medical drugs, elements for the production of synthetic fibres, detergents, explosives, varnishes and so on.

A strong commitment in research and innovation is reflected in a consistent drop in reported injuries over the last few years in this sector.

Risks can derive from exposure to chemical substances in solid, liquid, gassy or aerosol state. These substances can have harmful effects on the human organism when inhaled, ingested or absorbed through other types of contact. Some damaging effects are immediately visible, others can manifest themselves even after several years.



ACCIDENTS IN CONFINED ENVIRONMENTS

A confined environment is a circumscribed space characterized by limited openings for access and an unfavourable natural ventilation. Confined environments include silos, warehouses, sewers or septic tanks, rooms or containers with high up openings, vats or purifiers, places where serious accidents can take place due to dangerous chemical agents.

The risks connected to these types of work environments are essentially:

- **suffocation:** due to a prolonged stay in an environment with a limited change of air or to chemical reactions leading to a consumption of oxygen;
- **poisoning:** due to inhalation of or skin contact with toxic substances;
- **fires or explosions:** due to the presence of chemical agents capable of prompting an explosive reaction.

It is recommended, before taking any action, to assess all the possible measures that make it possible to carry out a task without entering a confined space. If it is necessary to enter, employ all CPE (collective protective equipment) to carry out the task safely.

Using the required PPE and respecting all the rules of procedure help to prevent possible risk factors connected to the presence of harmful substances in closed and insufficiently aired environments.

When working in confined spaces it is crucial to wear all the specific and appropriate PPE (masks, gloves, goggles, overall, footwear and so on); for example, to protect yourself from irritant gases it is not sufficient to wear a generic mask, but it is necessary to use a specific mask against that particular agent.

Workers operating in confined work environments have to have been trained in the use of the specific PPE and in rapid rescue procedures to help their colleagues.

CAUTION

It is necessary to remember that to safeguard the health of workers operating in these environments the law imposes that maximum values for exposure to chemical substances are established. For an accurate assessment of hygienic and environmental conditions, furthermore, it is common practice to refer to the Threshold Limit Values - TLV, bearing in mind that they only represent maximum acceptable concentrations and must therefore be only considered recommendations.





PERSONAL PROTECTIVE EQUIPMENT AND SAFETY SIGNS

Safety signals provide indications or provisions regarding safety on the workplace and can be in the form of a sign, a colour, a signal light or sound, a verbal or non-verbal communication. All signals must conform to Legislative Decree 81/08.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Legislative decree 81/08 defines personal protective equipment (PPE) as «any equipment to be worn and kept by workers to protect them against one or more risks capable of threatening their safety or health during work, as well as all complementary equipment or accessories specific to that aim».

According to the risks involved, we have PPE for: head protection; protection of the respiratory tract; eye protection; hearing protection; protection of the upper and lower limbs, body protection; fall prevention.

According to the activity carried out by the various subjects, PPE can be divided into:

- First category PPE: with a simple design, it helps protect workers from the risk of minor physical damage. Examples of first category PPE would be equipment protecting workers from ordinary atmospheric phenomena during their professional activity or from the harmful effects of sunrays;
- Second category PPE: equipment protecting workers from significant risks, designed especially for the protection of eyes, arms, hands and face. They must be certified by an authorized control organism;
- Third category PPE: equipment complex in design and protecting workers from the risk of death or serious permanent lesions. Examples of third category PPE would be equipment protecting workers from high falls or equipment isolating the worker from high

Due to its high use, to avoid any problems for the worker, employers should replace PPE as soon as it manifests the first signs of wear and tear.

voltage. To be used, the PPE in this category requires specific training courses.

Before being put onto the market, PPE must comply with specific safety requirements and include a "Declaration of Conformity", without which they cannot be sold or used.

CAUTION

All PPE must include a specific instruction and maintenance manual describing its correct use in relation to the types of risks it is employed against, as well as all maintenance procedures to carry out to keep degrees of protection and validity at the highest level. It is important for workers to store PPE appropriately and to report to the person in charge any defects or problems they may find in their equipment.



SIGNAL SHAPES, COLOURS AND MEANINGS

Warning signals are distinguished by colour, design, shape and size. To each signal a particular class of warning is associated along with the distance from the place of signalling where it must be allocated, in conformity with Annex 1 of Legislative Decree 493/96. Below is a list of the most commonly used signals on workplaces and beyond.



Prohibition signs: circular shape; black pictogram on white background; diagonal line running through the signal from top left to bottom with an inclination of 45°, red (the red must cover at least 35% of the sign)



Instruction signs: round shape; white pictogram on blue background (the blue must cover at least 50% of the surface of the sign)



Warning signs: triangular shape: black pictogram on yellow background, black border (the yellow must cover at least 50% of the surface of the sign)



Rescue signs: square or rectangular shape; white pictogram on green background (the green must cover at least 50% of surface of the sign)



Fire prevention signs: square or rectangular shape; white pictogram on red background (the red must cover at least 50% of the surface of the sign)

PROHIBITION SIGNS



No smoking



No open flames



Non drinkable water



No moving trucks



No pedestrians



Do not extinguish with water



Do not touch



No entrance for unauthorized persons

INSTRUCTION SIGNS



Eye protection must be worn



Safety helmet must be worn



Ear protection must be worn



Respiratory equipment must be worn



Mandatory personal protection against falls



Safety boots must be worn



Safety gloves must be worn



Mandatory personal body protection



Mandatory personal face protection



Mandatory path for pedestrians

WARNING SIGNS



Flammable matter



Explosive matter



Toxic matter



Corrosive matter



Low temperature



Beware, overhead load



Beware, industrial trucks



Danger, electricity



General danger



Harmful or irritant matter



Radioactive matter



Laser rays



Combustive matter



Non ionizing radiation



Biological hazard



Intense magnetic field



Trip hazard



Drop hazard

RESCUE SIGNS



Direction to follow - Path – Emergency exits



First aid



Rescue and first aid telephone



Stretcher



Safety shower



Eye wash station

FIRE PREVENTION SIGNS



Fire SOS phone



Fire hose



Ladder



Fire extinguisher



This way

INJURIES AND OCCUPATIONAL DISEASES: WHAT TO DO?

What workers should do in case of a work injury:

- immediately inform their employer;
- in case of a professional disease: employers must be informed within two weeks.

What employers should do:

- after having been informed of the event, send INAIL, within 2 days in the case of injuries and within 5 days in the case of professional diseases, the injury or professional disease report by filling in the specific forms provided by INAIL;
- in the case of accidental death or of a life-threatening injury or disease the report must be sent by telegram within 24 hours of the event.

INAIL insurance is regulated by the rules contained in the Consolidated Act of Dispositions on mandatory insurance against work injuries and professional diseases (T.U. n. 1124/65), by Legislative Decree n. 38/2000 and by special dispositions (domestic workers, housewives, radiologists, etc.).

The Consolidated Act and Legislative Decree n. 38/2000 specify what subjects require insurance and the injuries and diseases for which the work case is recognized.

INAIL also safeguards workers who suffer an injury during their journey to or from the workplace (commuting injury).

All subjects who work for natural persons, juridical personalities, private citizens or public institutions (whatever work sector they operate in) are insured against work injuries and professional diseases.

Health and safety on the workplace are a fundamental right: employers are jointly liable for health and safety in workplaces.



CHEMICAL AGENT Any element or chemical compound, by itself or mixed with others, present in nature or obtained artificially.

DAMAGE Any alteration, transitory or permanent, of the human organism, of any of its parts or functions.

DANGER The properties of a specific factor or agent to cause damage.

DOMESTIC ACCIDENT According to the definition given by the Italian Statistics Institute in its sample surveys, an injury of the domestic kind presents specific characteristics, it entails the temporary or permanent compromising of a person's health conditions due to lesions of various types. It occurs independently from human will, it takes place in living environments, meant as apartments or houses as a whole and any extensions (balconies, gardens, garages, cellars, stairs etc.).

EMPLOYER The subject holder of a work relationship with a worker. She/he is generally identified as the person responsible for organizing the conditions under which the worker lends her/his services and as the one who detains the powers of decision-making and expenditure of the work organization.

OCCUPATIONAL DOCTOR A doctor specialising in occupational medicine who works directly with the employer and with the prevention and protection service for the correct organization of a firm.

PERSONAL PROTECTIVE EQUIPMENT (PPE) All equipment to be worn and kept by workers for protection against one or more risks capable of threatening their safety or health when at work.

PREVENTION All dispositions necessary to avoid or lessen professional risks respecting the health of the population and the integrity of the external environment.

PREVENTION AND PROTECTION SERVICE (PPS) All the people, systems and means external to or internal to the firm finalized to prevention of and protection from professional risks within the firm.

RISK Is the probability of reaching the potential level of damage in conditions of employment or exposure to a specific factor or agent or a combination of the two.

RISK ASSESSMENT Is the global documented assessment of all risks for workers on the workplace. It is targeted at developing adequate measures to improve health and safety conditions for workers.

SIGNS Signals with varying geometrical shapes, colours or symbols providing specific indications and with a sufficiently guaranteed visibility.

SOUND/LIGHT SIGNALS Sound signals are acoustic signals released by specific appliances without employing human voices. A light signal is released by a transparent material device lit up from inside or the back so as to appear luminous itself.

TEMPORARY STRUCTURES In constructions, temporary structures are provisional fabrications that will not be part of the final work. Structures intended for the collective safety of workers on construction sites are temporary structures.

THRESHOLD LIMIT VALUES (TLV) Represent the maximum concentration of a substance in the air that most workers can be repeatedly exposed to day after day without negative effects on their health. TLVs can be expressed as ppm (parts per million) or in mg/m³.

VERBAL AND NONVERBAL COMMUNICATION Verbal communication is any message transmitted using the human voice. Nonverbal communication is the range of conventional arm and hand movements to guide workers when carrying out risky or dangerous manoeuvres.

WORKERS People who, independently from the type of contract, carry out work activities with a public or private employer, with or without retribution, even merely to learn a job, art or profession.

WORKER SAFETY REPRESENTATIVE (WSR) An employee of the firm elected or designated to represent workers on all matters concerning health and safety at work.

WORKPLACE Any place destined to contain work quarters, placed inside the firm or the productive unit, or any other place under the responsibility of the firm accessible to workers as part of the work they do.

APPLICABLE NORMS AND REGULATIONS

Legislative Decree 81/08; Decree 37 of 22/01/2008; Legislative Decree 626/1994; Legislative Decree 21/2008; Law 247/2007;

Legislative Decree 257/2006; Legislative Decree 66/2000: implementation of Directive 97/42/EC and 1999/38/EC on the protection of workers from the risks related to exposure to carcinogens at work;

Legislative Decree 25/2002: implementation of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work;

Ministerial Decree 26 February 2004: definition of a list of indicative threshold values for professional exposure to chemical agents.

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European Fund for Integration for third-country nationals



A small guide to help
workers do their job
with greater safety.

SAFETY *At Work!*

