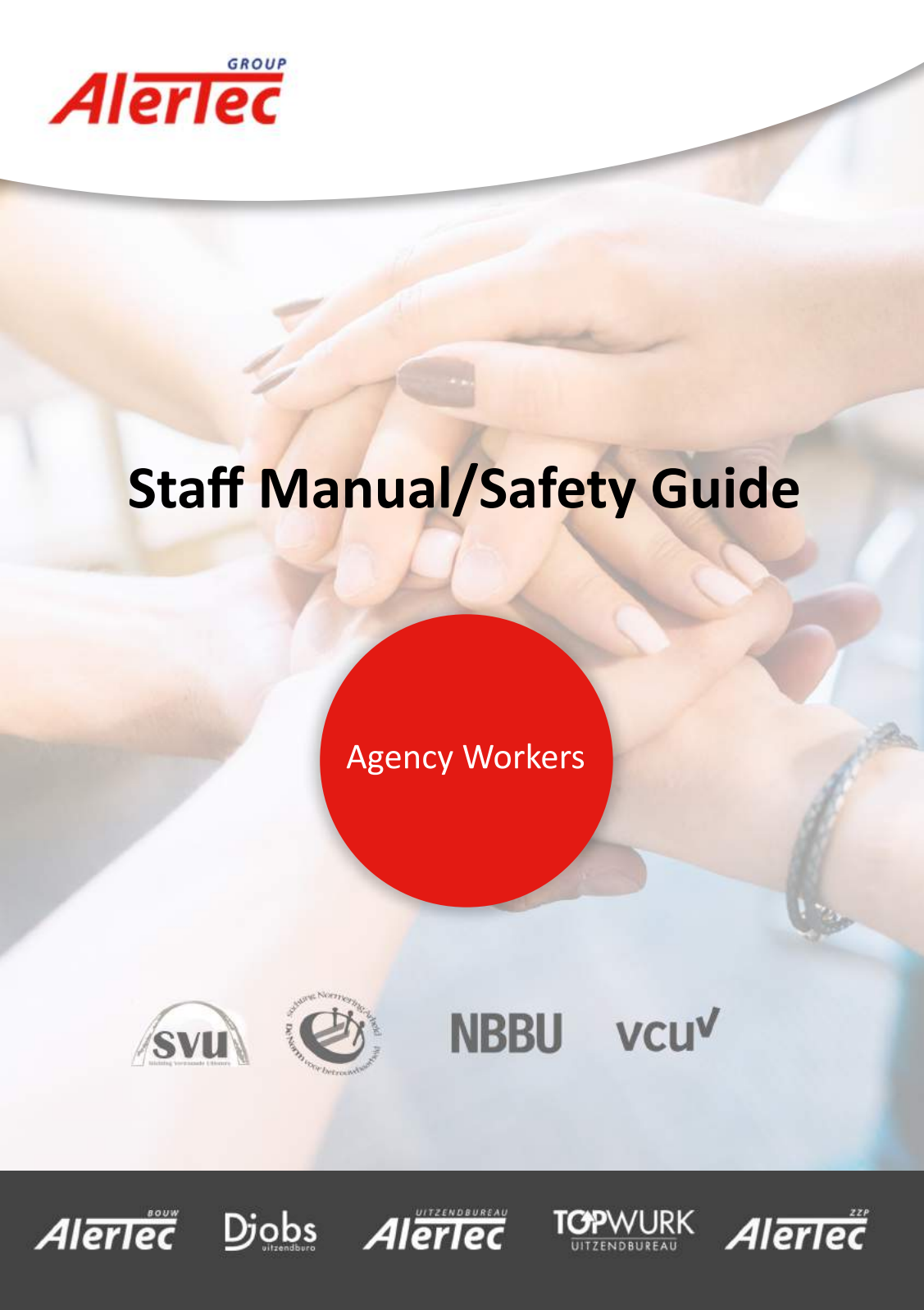

Staff Manual/Safety Guide

Agency Workers

Contents

Preface

Dear agency worker,

Before you start working via the Alertec Group, we would like to provide you with comprehensive information about a few matters. In this Staff Manual we have set out the key points. Please read it carefully and keep it for future reference. This way you will now how it works at Alertec Group and what we expect from you.

The Alertec Group is VCU certified (Health and Safety Checklist for Employment Organisations, "Veiligheid en Gezondheid Checklist Uitzendorganisaties" in Dutch). This means that we, as an organisation, strive for a workplace that is as safe as possible and that we aim to prevent accidents and near-accidents at the workplace. This can only be achieved if you are aware of the dangers at the workplace and if you stick to the applicable rules. Therefore we have added a Safety Guide to this Staff Manual as an appendix.

If you have any questions or concerns, please pick up the phone or visit one of our offices during business hours (see page 5 of this manual). We are more than happy to help!

Kind regards,

The Alertec Group

1. General information

1.1 Who we are

The Alertec Group is an employment agency that focusses on temporary placement and secondment of agency workers in Construction, Metals, Electricity and other general sectors.

Our method
Personal contact is very important to us here at the Alertec Group. Therefore, we first discuss in a personal interview what you would like to do, what experience you have and what the possibilities are within the Alertec Group. The goal of all this, is to find you a fun and interesting temp job or secondment position! We have a unique network of employers. This means we can constantly offer interesting positions.

Goal
Our goal? To make a perfect match between you, a position and a company! A good match has to fit you, so you can function at your best. If you feel you are in the right place, are able to work with enthusiasm and can maximise your talents, everybody's happy.

Collective labour agreement (CAO in Dutch)
The Alertec Group is a member of the Dutch Association of Intermediary Organisations and Temporary Employment Agencies ("Nederlandse Bond van Bemiddelings- en Uitzendondernemingen" in Dutch, or NBBU) and therefore is covered by the NBBU CAO for Agency Workers.
Typical is the subdivision into a system of phases, which offers both agency workers and employers optimal clarity and a substantial degree of footing.

In the CAO for Agency Workers, in which the labour unions and the NBBU have set out their agreements, the rights of the agency workers have been laid down, as well as the related duties of the employment agencies.

We also use the CAO for Agency Workers of the Dutch Association of Intermediary Organisations and Temporary Employment Agencies (NBBU) for all regulations.
This means our pay-rolling is based on the NBBU CAO. This CAO booklet is handed to you when you start working for us. (The CAO can also be downloaded via our website.)

1.2 Contact

We can be reached from Monday through Friday from 8:30 AM to 5:00 PM.

Our visiting address is:

Alertec Emmeloord Office
Nagelerstraat 27
8301 XE Emmeloord
T. +31 (0) 88 400 45 30
F. +31 (0) 88 400 45 01
E. emmeloord@alertec.nl

Alertec Bouw Elst Office
Peppelbos 5a
6662 WB Elst
T. +31 (0) 88 400 45 65
E. zuid@alertec-bouw.nl

Alertec Elst Office
Peppelbos 5b
6662 WB Elst (Gld.)
T. +31 (0) 88 400 45 40
F. +31 (0) 88 400 45 01
E. elst@alertec.nl

Alertec Bouw Drachten Office
Oude Nering 68
9203 AD Drachten
T. +31 (0) 88 400 45 90
E. info@alertec-bouw.nl

Alertec Drachten Office
Oude Nering 68
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Alertec Drachten Office - Head Office
Lavendelheide 18
9202 PD Drachten
T. +31 (0) 88 400 45 00
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E. drachten@alertec.nl / info@alertec.nl

D-jobs Oosterwolde Office
Molenweg 3
8431 HN Oosterwolde
T. +31 (0) 88 400 45 80
E. oosterwolde@d-jobs.nl

D-jobs Leeuwarden Office
Zuidvliet 162
8921 BN Leeuwarden
T. +31 (0) 88 400 45 26
F. +31 (0) 88 400 45 01
E. leeuwarden@d-jobs.nl

D-jobs Sneek Office
Oppenhuizerweg 58 8606
AS Sneek
T. +31 (0) 88 400 45 70
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Topwurk Dokkum Office
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9101 PA Dokkum
T. +31 (0) 519 700 212
E. info@topwurk.nl

Internet:
www.alertecgroup.nl
www.alertec.nl
www.alertecbouw.nl
www.d-jobs.nl
www.topwurk.nl
www.alerteczzp.nl

2. **Employment data**

2.1 Contracts

When you start work, you will receive a Temporary Employment Agreement from us as soon as possible. This agreement contains, among other things, your personal information, the information of the company you will be working at, your hourly wage and any other agreements that have been made.
After you have signed this agreement, you are in the employment of the Alertec Group. This agreement is effective as long as you work at the hiring company. As soon as the work at the hiring company stops, the agreement ends.

Please return the signed Temporary Employment Agreement as soon as possible after receipt, and also keep a copy in your own administration. Certain authorities might request a copy in future.

2.2 Work slips

After each week of work you receive your wage. The wage is calculated on the basis of the actual number of hours worked. In order to register these hours with us, we use work slips. These work slips are filled in by you at the end of each work week.

Please enter your own name, the name of the hiring company, the number of hours worked and the week number on these work slips. You should have the work slips signed by the management of the hiring company, or by someone who is appointed and authorised to do so (often the foreman).

Record the hours in decimals, e.g.: fifteen minutes is 0.25 hours, half an hour is 0.5 hours.

Note: In some cases the hiring company works with a digital time sheet. You will receive the necessary information with regard to this from your contact at the Alertec Group.

2.3 Notifications of sickness and recovery

If you are sick, you should notify your manager/foreman at the hiring company of this before start of work. You should also notify your Alertec Office of this, on the same day before 9:00 AM.

Notifications of sickness can be done by phone. You always make the call yourself. When reporting sick you should provide us with the following information:

- the reason for being absent;
- the expected duration of the absence;
- the address and telephone number of any care facility you are staying in.

Please do not forget to also give your colleague a call if you are carpooling, so he or she is not needlessly kept waiting or driving to your house to pick you up.

You have recovered and are going back to work? Please inform us of that the same day.

2.4 Holiday, compensation for reduced working hours (ATV in Dutch) and short-term leave

Be sure to always timely discuss taking days off with the company you work at. The sooner you inform them, the better they can adjust their schedule.
Also register taking up a day off on your work slip. We can then pay this day, if you have accumulated enough hours/days.

2.5 End of work activities

As soon as you are aware that your work at the company you work at is coming to an end, you should contact one of our offices as soon as possible.
It does happen that we have job openings available at that moment that might be suitable for you, so you can be back at work as quickly as possible.

And if we don't have a suitable position for you? In some cases you might be entitled to unemployment benefit. In order to receive the benefit, you should register with "UWV WERKbedrijf" (the Dutch Centre for Work and Income) on the first day of unemployment.

2.6 Annual statement

Each year, at the end of February, the annual statement will be sent to our agency workers. It states exactly what you have earned at the Alertec Group in the previous year. You need this annual statement, which is distributed only once via email, for your tax declaration and return, as well as for possibly claiming benefits.

3. Other matters

3.1 Change of personal information/Relocation

It is important to us, as employer, that we have the right information.

If you are moving house, getting married or if there are any other changes in your personal situation, please inform the Alertec Group of this as soon as possible!

Not communicating this timely may have consequences for your tax assessment and may result in fines.

3.2 Identification requirement

In The Netherlands the Identification Requirement Act applies. Therefore, there should always be a copy of your identification document present at our office. For that reason there is always a copy made upon registering at our office. This cannot be a driving license.

You should also always be able to show proof of identity at the place you work at. Certain authorities, such as the Tax Authority or the Labour Inspectorate may carry out checks at the place of work. In that case you are allowed to show your driving license.

If your identification document has expired, you should apply for a new one at your local municipality. Make sure to visit our office with your new identification document.

3.3 Periodical Occupational Health Examination

If you perform physically or mentally demanding tasks, or if you work with hazardous substances or under other difficult circumstances, this may have an influence on your health. With the help of a Periodical Occupational Health Examination (PAGO in Dutch) this can be overcome.
The aim of this examination is to detect as soon as possible whether certain health issues exist, and if so, what can be done about them.

Agency workers of the Alertec Group are also free to make use of the possibilities of a PAGO examination. The examinations are performed by Compact Verzuim.
The results of these examinations will be disclosed verbally or orally to the employee themselves. The Alertec Group will not be made aware of these results. Should there be any problems, only data is communicated to the Alertec Group, without the origin of this data being specified.

If you are interested in a PAGO examination, please contact one of the Alertec Group contacts.

3.4 Other agreements

- Please inform Alertec Employment Agency of any changes in your personal situation (e.g. move, marriage, second job or receipt of benefits) as soon as possible. Certain changes may have an influence on the level of your wage tax.
- Please keep a close eye on your personal belongings during work; the Alertec Group is not responsible for loss, damage or theft.
- If you start working for the Alertec Group, you will be insured with a Dutch health insurer.
- In case of doubt or unclarities, please contact Alertec Employment Agency.

Appendix:
Safety guide

"You can't make an omelette, without breaking eggs."

Each workplace has its risks!

The Alertec Group aims to pursue proper policy with regard to Safety, Health and Environment. We strive for a continuous improvement in this area and therefore are VCU certified. We aim to reduce the risks at the work place and thus try to reduce the chance of an accident to a minimum.
We do this by making a risk inventory of each work place and bring the risks to the attention of you as agency workers.

It is therefore of vital importance that you comply with the rules and regulations as these apply at your place of work. You should also use the proper personal protective equipment and report any unsafe situations.

In order to give you a good image of the general rules and the dangers involved with your position, we have made this Safety Guide. Please read it carefully before you go to work and keep it for future reference.

1. General rules and regulations

1.1 General rules

The regulations in this Operational Manual apply to all employees.
Furthermore, one must comply with what has been established in national and international laws, standards and guidelines.

Each employee is required to take the utmost caution and due care in order to prevent causing danger to the safety and health of themselves or others.
The company management is responsible for safety and health during work. In such case that activities and behaviours are such that this responsibility can no longer be borne, appropriate actions will be taken.

In addition to the rules in this Operation Manual, each person is required to follow any regulations that apply on the premises of third parties, if work takes place there.

All employees are required to:
- Observe the regulations.
- Safely handle machines, equipment, tools, hazardous substances, resources, etc.
- Use the personal protective equipment provided.
- Be present at informational and educational meetings.
- Immediately have themselves treated by an approved first-aid provider, in-house emergency response staff or physician in case of an accident or injury.
- Immediately take action when noticing dangers if this can prevent an accident, and subsequently report this to their manager as soon as possible.
- Inform themselves of the manner in which accidents and fires are to be reported when entering unknown business premises or building sites.
- Make sure they are aware of the escape routes at the work place.
- Ensure upon giving orders, that these can be executed in a safe manner.
- Keep the work place tidy and accessible.
- Immediately report to their manager any defects to transport vehicles, machines, tools and resources.
- Keep emergency exits, escape routes and fire extinguishers free and accessible.
- Leave fire extinguishers in their place and immediately hand them over to their manager for replacement after use.

The following is not allowed at work:

- Working alone in places where there is no possibility to contact others.
- Being under the influence of alcohol or narcotics.
- Playing around or roughhousing.
- Having youths under the age of 18 perform work that is prohibited under the Labour Law.
- Working without the proper safety measures and personal protective equipment.
- Using tools, machines, equipment and personal protective equipment in any other way than their intended purpose.
- Drive any vehicles without a proper license/certificate, if such is required. For example driving a forklift, reach truck, loader, car, etc.

1.2 Order and tidiness

Order and tidiness are a primary requirement for the promotion of safe working conditions. Clearing up, therefore, is not considered to be lost time.

In order to maintain a safe work place, the following regulations have been established:

- Escape routes, emergency exits, fire extinguishers, access routes, passageways, exits, stairwells and access to switches should be accessible and free from obstacles.
- Tools and materials should be stored at the end of the work day and upon completion of the activities.
- Unnecessary materials should be removed.
- Waste material should be cleared and deposited in the appropriate bins.
- Hazardous waste (previously chemical waste) should be removed separate from any other waste and should be deposited in the appropriate bins.
- Oil and grease stains should be removed.
- It is strictly prohibited to throw or drop materials down from a higher work place.
- Rooms for eating, dressing and washing should be kept in a clean and hygienic state.

1.3 Personal protective equipment (PPE)

Personal protective equipment may only be used if the risks cannot be reduced in any other way, and are therefore always the final measure.

In practice, however, there are several situations in which source-directed measures are impossible, or in which technical solutions cannot be applied sufficiently in order to effectively manage the risks. In such cases, it is necessary to use personal protective equipment, as an addition to or in combination with other measures.

Personal protective equipment should be suitable for the risks they are to provide protection against, and should be adapted to the working conditions and the individual characteristics of the user. The personal protective equipment itself should not pose any additional risk or increase the risk, should be adapted to the working environment and is not allowed to cause any additional nuisance or irritation.

Personal protective equipment is divided into three categories, depending on the magnitude of the risk it is protecting against.

Cat. I Protection against low risks
PPE of a simple design, such as gardening gloves.

Cat. II Protection against medium risks
PPE such as safety gloves and hearing protection.

Cat. III Protection against high risks
PPE such as respiratory protective devices and fall protection harnesses.

Using PPE
- After choosing and being given the PPE, information and instructions should be provided.
- Periodical checks should be performed by an expert.
- Replacements should be made on the advice of an expert or upon request from the user.
- Replacement is also necessary if there are signs of soiling, lessened wearing comfort, damage or wear and tear.
- PPE should be serviced at regular intervals.
- Especially with regard to cat. III products, this servicing should be performed by an expert.
- The user has a primary duty when it comes to daily maintenance.

1.4 Reporting accidents

Each and any accident resulting in injury or damage, near-accidents, unsafe activities and/or situations should be immediately reported to the responsible manager by the person involved.

Document all facts, even of seemingly unimportant matters. Any pictures of the situation at hand might be of use for future handling.

In this case "future handling" at least means learning from the events, evaluating accidents and possibly taking technical or organisational measures.

In case of serious accidents local situations are not to be changed before having received permission from the authorities, such as Law Enforcement or the Labour Inspectorate.

The following classification is used:
1. Fatal.
2. Lost-time incident.
3. Alternative work incident.
4. Medical treatment.
5. First aid/In-house emergency response.
6. (Environmental) damage.
7. Near-accident.
8. Unsafe activity/situation.

For 1–5
Accidents classified from **1–3** should be **immediately** reported to the Managing Director, who will conduct an investigation (or have it conducted) without delay.
Accidents classified from 1–5 should be reported by the responsible manager by means of the Accident Report Form ("Melding ingeval/incident" in Dutch) within 24 hours.

For 6–8
Unsafe situations and/or activities (also referred to as incidents below) should be reported by the responsible manager by means of the Accident Report Form within 24 hours.

The form should be completed and signed by the person involved and the responsible manager, and should be presented to the foreman.

1.5 Calamities

The first time you arrive at a business premises or building site, and after that as often as necessary, you will have to make yourself familiar with the customary way to report a fire (emergency number and other phone numbers), and how to act in case of calamities (also see the standard emergency plan that is present at each work location).

Be sure you are aware of the escape routes from your work place and the location of and way to use extinguishers in and around your working environment.

Extinguishers are assigned to certain application areas by way of letters:
A = Solids
B = Liquids
C = Gasses
D = Metal fires

Extinguishers should be checked annually.

Escape routes, emergency exits, and fire extinguishers should be accessible and free from obstacles.
Prevent fire by removing any flammable materials when performing work with a fire risk (e.g. welding, grinding, cutting, etc.).
Always make sure the fire brigade has free passage.

In case of a fire or explosion, the following actions should be taken:
- Report the fire or explosion via the locally applicable fire reporting procedure and immediately notify the manager.
- Close gas cylinders and switch off any electrical devices.
- If possible, reduce ventilation by closing doors, windows and vents, and shutting down fans and extraction devices.
- If possible, start putting out the fire immediately, but do not take any risks in doing so.
- Leave the location if the situation becomes too dangerous or if you have lost the overview of the situation.
- Please report calamities to **112**, the company management and the client as soon as possible.

2. Use of electrical equipment

The specific dangers of electrical equipment are electrocution and causing explosions as a direct result of use.
Therefore, it is important to submit defect equipment for repair to the manager immediately.

All electrical tools should be fit for industrial use. 50 VAC and 120 VDC equipment is considered safe, since injury is very unlikely in case of exposure to it.
220 V versions with double insulation are also considered safe. They can be identified by the double square symbol.
Some work will require the use of explosion-safe tools. Always discuss this with your manager.

With regard to lighting, the housing should consist of an impact-resistant material or should have been fitted with some form of protection that ensures electrical contact is impossible in case of falling or getting bumped.

All electrical tools should be inspected annually in accordance with standard NEN-EN 3140.

Test reports should be present at the office.
Repairs, maintenance and inspection of electrical equipment should always be performed by an authorised person.

Please use pneumatic equipment if the use of electrical equipment is prohibited.

Please refer to standards NEN-EN 1010 and NEN-EN 3140 for electro-technical regulations for powered hand tools.

3. Demolition works

For demolition works a work and HSE plan has to be drawn up.

Before the demolition works start, proper preparations should be made, such as:
- Reviewing the work/HSE plan.
- Deciding on the specific tasks of the practitioners.
- Checking whether the object has been released by the client.

In order to perform the work in accordance with the work/HSE plan, feasibility thereof has to be examined on the spot. Especially the following key points are important:
- Can the planned supply and removal routes for equipment and materials really be used.
- Have possible dangers for the surroundings properly been recognized and are the protective measures taken in protection thereof sufficient.
- Have any possible toxic substances present in the objects to be demolished been identified.
- Is the amount of demolition work that has been described a representation of the reality.
- Has the object to be demolished been disconnected from gas, water and electricity or will these connections remain (partly) intact.

Before the demolition works start, the work/HSE plan, containing all measures, procedures, and working methods, needs to be discussed with all employees involved. This also includes hired staff and subcontractors. Attention is brought to the risks of the demolition works. These instructions should be reiterated periodically to all parties, especially in the case of long-term projects (e.g. by way of toolbox meetings).

Dismounting, manually hacking and breaking
Dismounting elements from buildings or installations is performed:
- To prevent noise, vibration and dust nuisance.
- In case of re-use of demolished elements.
- For safety reasons, with regard to adjacent structures and/or facades, or components that need to stay intact.

Objects to be demolished or parts thereof may only be dismounted or taken down from safe spots. These spots should be safely accessible.
Safe spots and routes are those locations where there is no danger of falling from a height or falling into the water. If there is a risk of this happening, the appropriate safety measures should be taken.

Pneumatic demolition hammer
Use results in dust, noise and vibration nuisance. Attention points for use:
- Check the functioning of the demolition hammer before starting work; never use a (partially) defective demolition hammer.
- The use of hearing protection and safety goggles is necessary.
- The use of soft leather gloves is recommended, since they slightly absorb vibrations.

Mechanical with a hydraulic crusher
The hydraulic crusher (cracker) is a scissor-shaped machine that is fitted with a hydraulic cylinder. The crusher is usually mounted on a hydraulic crane. This method is without any significant noise, dust and vibrations.

Mechanical with a hydraulic demolition hammer
During this striking process a tear occurs in the surface that is being worked on; subsequently elements will come loose and can be removed.

For all demolition works a "controlled demolition area" is to be assigned.
This means:
- Marking and closing off the demolition area at a distance at which it may reasonably be assumed that there is no risk for the surroundings.
- Putting up "No access" and "Helmet compulsory" signs at the demolition area.
- The stability of the remaining, adjacent and adjoining parts of the object to be demolished should be ensured in all stages of the demolition process; external influences should also be taken into account, such as wind forces and traffic vibrations.
- If objects for demolition or parts thereof might lose their bearing due to the demolishing of adjoining or weight bearing parts, the risk that might subsequently arise should be countered by way of braces, struts or props or the like.
- If demolition works are performed at companies where hazardous substances (including gasses) are formed, being produced, handled, processed or stored, safety measures should be taken to prevent the risk these substances might pose.
- During the demolition works, the formation of hazardous, irritating and flammable vapours, gasses and dust, as well as explosive mixtures thereof, should be prevented by using air.

- In case this is not or not sufficiently possible, safety measures should have been taken in order to prevent any harmful effects, nuisance or dangers as much as possible (sufficient respiratory protection and skin covering, for instance).
- The formation of dust during demolition works should be avoided by keeping the area wet or by applying extraction.
- It is not allowed to perform demolition works if weather conditions create unsafe situations.
- Depending on the nature of the demolition work, there should be a safe possibility of escape.
- When using cranes, excavators, bulldozers, etc. attention should be paid to not compromising the safety of the operators and persons in the vicinity.

4. Materials containing asbestos

There are serious health risks involved with working with asbestos.
Asbestos fibres can be inhaled unnoticed and can be deposited in the lungs.
As a result of the characteristics of these asbestos fibres, the lungs are virtually unable to remove them. As such, exposure to asbestos may lead to serious danger to one's health, even after several years.

Since 1993 the professional use of asbestos is prohibited. This, however, does not mean the risk of exposure to asbestos is gone. After all, asbestos that has been applied in the past still has to be removed. Asbestos has been used on a large scale and in a wide variety of applications.

Exposure to asbestos may occur unnoticed, even whilst one is not directly working with the material. One example is working in an office building in which air-placed asbestos has been applied as a flame retardant. Asbestos fibres from fire-resistant asbestos sheets might also be released as time goes by.

Some examples of the many applications of asbestos are:
- Pressed into plates, cardboard or paper as a fire-resistant material, e.g. in doors of safes, or used in stage sets.
- Asbestos paper as an antifungal undercoating for vinyl flooring and in roofing material.
- Bound to cement as cement-asbestos sheets, pipes and ventilation ducts in construction, underground gas and water pipes, as flower boxes, etc.

Asbestos removal
The three most important legal requirements for asbestos removal are:
- Before the start of asbestos abatement, it has to be reported to the Labour Inspectorate in the relevant region by the executing company (certified under BRL 5050).
- Work must be executed by or under the supervision of a DTA-A (an Expert Overseer of Asbestos Abatement, or "Deskundig Toezichthouder Asbestsanering" in Dutch).
- Work should be executed in accordance with a previously established written work/HSE plan.

Exposure to asbestos may lead to the following conditions:
- Asbestosis, a decrease in lung capacity which may lead to cardiac pressure overload, also known as pneumoconiosis.
- Lung cancer. The longer one is exposed to asbestos, the higher the risk of this disease. Smoking in combination with exposure to asbestos significantly increases the risk of lung cancer. A period of over 10 years may span between the moment of exposure and the initial occurrence of the disease.
- Mesothelioma. This is a form of cancer of the pulmonary pleura or the peritoneum. About 80% of the cases can be attributed to exposure to asbestos. It is possible that the disease does not manifest itself before 10 to 60 years after the initial exposure.

5. Working at heights

If work must be performed at a height and there are no existing facilities, resources exist to execute these tasks.

Of existing resources, the following are most commonly applied:

- Steel scaffolding
- Mobile scaffolds
- Suspended scaffolding
- Ladders and steps
- Aerial work platforms (AWPs)
- Safety cages

5.1 Steel scaffolding

The risks of working on scaffolding consist of:

- Falling from a height.
- Falling through an opening in a work platform.
- Getting struck by falling objects.
- Falling from a scaffold as a result of insufficient anchoring.
- A scaffold collapsing as a result of overloading.

There is a difference between heavy-duty and light scaffolding:

- Heavy-duty scaffolding has a maximum floor load of 300 kg/m².
- Light scaffolding has a maximum floor load of 150 kg/m².

Assembling, changing and dismantling scaffolding should be done under proper expert supervision.

Standards and guidelines

- Scaffolding materials are not allowed to be bent or corroded, and should not show any tears, notches or wear and tear.
- Weldings of two consecutive beams and/or posts should be staggered, unless the welding joint is strong enough.
- Anchoring of the posts should be done in a staggered manner.
  The purpose of anchoring is:
    - shortening the bending length of the posts;
    - preventing the scaffolding from tipping over;
    - compensating for the lack of cross-bracing in the inner section.

  Anchoring should be placed:
    - to fixed points of the build, from as low as 2 metres high;
    - as close to junctions of posts and beams as possible.
- Cross-bracing should be sufficiently present (max. six consecutive posts are allowed to be without a cross brace). Cross-bracing should be applied as follows: from the ground floor, in a 45° angle, fixed to each post that is being crossed, as close to junctions of posts and beams as possible.
- If the work platform is 6 metres or higher up, a safety platform should be mounted, at a maximum of 2.5 metres below the work platform.
- All work platforms should be easily accessible by way of ladders (maximum climb height 7.5 metres).
- Handrails or guardrails along the work platforms should be at least 1 metre high (consisting of double handrails and a toe board), with openings of max. 47 centimetres between them.
- The height of special scaffolding should be calculated beforehand.

For example:

- scaffolding with more than one work platform bearing load, or any other deviant loads;
- scaffolding higher than 30 metres and/or wider than 1.80 metres;
- scaffolding with the inner posts further than 30 centimetres from the wall;
- scaffolding with deviant post distances or anchoring patterns;
- the use of gauze, tarpaulin or sheeting (wind load);
- broadening of the work platform;
- mounting hoisting equipment.

Measures

- Determine in advance the requirements of the scaffolding: the number of work platforms, the width, the lift height, the expected load (e.g. brick packs), whether or not cantilever scaffolding is used, an underground with sufficient load bearing capacity, possibilities for anchoring onto the construction, connections with goods and passenger lifts, access to the construction, protection of the surroundings against falling objects and dust.
- Altering a scaffold is strictly forbidden.
- Scaffolds should not be loaded more heavily than the indicated load capacity.
- Materials on a work platform should not be stacked any higher than 50 centimetres, unless guardrails are placed.
- Working from ladders and steps that are placed on the work platform is not allowed.
- Auxiliary scaffolding, such as trestle scaffolds, are not to be any wider than 2/3 of the work platform, and no higher than 50 centimetres high, unless the work platforms are continuously mounted at floor height (the auxiliary scaffolding may then be a maximum of 1.25 metres high). In such cases raised handrails and guardrails should be mounted.
- Stairwells and holes in work platforms should be shielded in a clearly visible manner.
- After assembly, scaffolding should be inspected at least once every three months, as well as after extreme weather, such as a storm, frost and excessive rainfall.
- Before setting foot on a scaffold, the user should check the scaffold for defects; if present, these should be immediately reported to the manager and the scaffold should not be used.
- Scaffolding may only be used after it has been released by way of a special card or scaffolding label.

5.2 Mobile scaffolds

The mobile scaffold is easy to use. Mobile scaffolds are used by various parties in various circumstances. That increases the risks. These risks can be overcome if the material is in good condition, if the assembly has been expertly done, and users are instructed by way of a clear manual.

The stability of the scaffold is highly dependent on the basic dimensions. Standard NEN 2718 is based on work platform heights of maximum 12 metres (indoor) and 8 metres (outdoor). Base extensions or stabilisers increase the basic dimensions and consequently the stability.

Cross braces should be placed on the outside as much as possible. The placement of and the amount of braces is however not always handled carefully.

Always follow the assembly and user manual of the manufacturer or supplier!

Standards and guidelines

- The maximum height between two (work) platforms is 4 metres.
- Handrails or guardrails along the work platforms should be at least 1 metre high (consisting of double handrails and a toe board), with openings of max. 47 centimetres between them.
- Floor hatches should be as small as possible, but at least 40 x 60 centimetres.
- Work platforms should be reached safely, some of the possibilities are:
    - climbing the vertical frame on the inside, providing that the distance between the rungs is between 25 and 30 centimetres, the shape of the rungs allows for a good grip of the hands, and the rungs are non-slip;
    - ladders – these should be firmly secured to the scaffolding construction (NEN 2718 HD 1004);
    - stairs and steps – often in combination with intermediary landings, fitted with handrails which run parallel to the stairs (NEN 2718).
- Assembling and dismantling should be performed under the supervision of an expert. In other words, someone who:
    - is aware of the dangers and the relevant legal requirements and standards;
    - is familiar with how to assemble and dismantle the relevant product and type of mobile scaffold;
    - has the necessary competencies in order to put this knowledge into practice.

Regulations for using mobile scaffolds

- Only original components of one and the same manufacturer should be used, unless the relevant components fit, follow the same material specifications, and are authorised by the manufacturer. Damaged components are not to be used.
- Mobile scaffolds with materials or persons on them are not to be moved.
- Windows that open outwards or automatic blinds can pose a real danger. Please make suitable arrangements with the user of the building.
- When working above support beams or girders, these should be covered or shielded in such a manner that persons or object cannot fall through or from them.
- When demolishing or dismantling buildings or parts thereof, scaffolds, floors and stairs and/or steps are not to be overloaded with demolition materials or rubble, which might lead to unsafe situations.
- Openings in floors and walls, with the exception of the locations where objects or goods are being hoisted or lowered, should be sufficiently shielded, in as far as these pose a risk.
- All equipment and materials that have been used during demolition works, should be removed in an orderly fashion.
- A mobile scaffold should be placed on a horizontal and level surface. The manufacturer will indicate whether, and if so, under which conditions it may be placed on a sloping surface.
- Traffic in the direct environment poses a risk, take traffic control measures.
- When the wind force is 6 or higher, the stability might be compromised. Work can only be continued if additional measures are taken, such as anchoring and cross braces.
- When leaving a mobile scaffold unattended, measures should be taken to ensure that children are not able to climb the scaffold, e.g. by way of site fencing.
- Mobile scaffolds should not be loaded more heavily than the indicated load.
- Working from ladders and steps that are placed on the work platform is not allowed.
- Moving a mobile scaffold should only be done over reasonably level floors or terrains.
- Before setting foot on a scaffold, the user should check the scaffold for defects; if present, these should be immediately reported to the manager and the scaffold should not be used.
- Always utilise the blocking direction of the wheels.

Each mobile scaffold should have the following markings, at eye level and clearly visible:
- Load bearing class 2 (1.5 kN/m²) or class 3 (2.0 kN/m²).
- Maximum height for indoor and outdoor use.

Example: **Mobile scaffold (HD-1004) - 2 - 8/12**

This means:
- Complies with HD 1004 (NEN 2718);
- Class 2 (1.5 kN/m²);
- Max. height outdoors 8 metres;
- Max. height indoors 12 metres.

The following should also be stated:
- Name of the manufacturer;
- The words "Gebruikershandleiding zorgvuldig in acht nemen" (Carefully follow the User Manual).

Each mobile scaffold should be provided with a manual in the user(s)'s language. The manufacturer or supplier is responsible for both the content of the manual and for making it available to the buyer. The employer of the user ensures the manual is available at the place of work (and, most importantly, stays there), and that it is being followed.

5.3 Suspended scaffolding

Suspended scaffolding is usually moved with electrical hoists and can be used to great heights. From a height of 40 metres facade guide rails are used.

Under normal use, the risks are no greater than with any other method for working at heights.
Only in case of overloading, poor maintenance and improper use risks can present themselves, such as falling, pinching of limbs and falling objects.
In the case of permanent suspended scaffolding, the suspension construction is part of the building, e.g. by using a roof cart on rails or by using fixed lifting arms. These installations are considered to be safe scaffolding.

Non-permanent hanging scaffolding is used in construction a lot, e.g. for working on facade cladding or painting and/or maintenance work. These are hanging from roof or gutter braces, or from a mobile construction on the roof with counter ballast.
These installations are not necessarily a safe work place. They are therefore only to be used, if a safer working method cannot reasonably be required.

Standards and guidelines
- Previous to each use (after each move for non-permanent), the installation should be checked for proper and safe functioning by a sufficiently trained person.
- Working in hanging scaffolding is only allowed for persons under the age of 18 under proper expert supervision and as part of their professional training.
- Persons working in hanging scaffolding should be attached to a higher point by means of a fall protection device.
  This requirement does not apply if the hanging scaffolding has been suspended in one of the following ways:
    - from at least four separate carrying cables;
    - from two separate carrying cables and two arresting cables with an arresting device;
    - from one carrying cable and one arresting cable with arresting device.

In these cases, a safety belt should be worn, which is securely attached to a solid point in the hanging scaffolding.

Regulations for using hanging scaffolding
- The roof should be safely accessible, with walkways at least 4 metres from the edge of the roof. If this is not possible, a physical barrier should be placed at least 2 metres from the edge.
- Users should have received instructions and must know how to operate the installation.
- The specified workload is not to be exceeded.
- Usage in unsafe weather conditions (such as wind force 6 or higher, a thunderstorm or frosty weather) is not allowed.
- The operating station should be manned at all times. It is prohibited to leave the installation unattended when it is ready for use.
- Defects or damage (e.g. a kinked cable) should be documented in a register or a logbook.
- Communication must be ensured, either by telephone or walkie-talkie.

5.4 Ladders and steps

Ladders can be used up to a height of 7.5 metres. A ladder is in principle a means of transport and not a work place, where reasonably possible.

The main risk is falling from a height, which can happen due to, for instance:
- Faulty rungs or side rails
- Too short or too long ladders
- Improper placement of use of ladders
- Insufficient maintenance

Ladders and steps should be marked with NEN2482, followed by the symbol of the type of ladder or step, the number of rungs per part, and the number of parts.

Standards and guidelines
- The width between the rungs should be at least 30 centimetres.
- The distance between the rungs should be 20–30 centimetres.
- The rungs (metal) should have a non-slip surface.
- The side rails of a wooden ladder should be made of Douglas fir wood or equivalent.
- The ladder rungs should be made of ash wood or equivalent.
- The stability of a ladder should be guaranteed at all times.
- The maximum working height is between 6 and 7.5 metres.
- The duration per job is 3 hours at most, of which 2 hours consecutively.
- The maximum reach is arm's length.
- Materials or tools to be transported via the ladder should not weigh more than 10 kg.
- Materials or tools to be transported via the ladder have a maximum size of 1 m^2.
- The distance between steps of a staircase should be between 23–30 centimetres.
- The depth of a step should be at least 8 centimetres.

Regulations for use:
- Position a ladder as such that it:
    - sticks out above the place to which it offers access with both side rails;
    - is leaning against a solid surface;
    - cannot slip or slide;
    - is positioned in an angle of 65° to 75° to the horizontal surface.

- Do not use portable climbing gear with wind force 6 or higher.
- Do not climb ladders higher than the fourth rung from the top.
- Use a wooden or plastic ladder when working on or in the vicinity of electrical cables.
- Avoid placing a ladder in front of a door or lock this door.
- Extension ladders should be used with the fly section at the front – ensure that there is an overlap of at least 4 rungs.
- Use both hands when climbing up or down the ladder and keep your face turned to the ladder.
- Do not reach any further to the sides than your normal arm length; otherwise, move the ladder.
- Never leave climbing material that has been put in place behind unattended (think of children and misuse by unauthorised persons).
- Never raise a ladder by putting it on a box or the like or by tying two ladders together.
- Use climbing material only for their intended purpose – do not use it as a gangway or for support.
- Do not use a ladder with damaged rungs or side rails.
- A ladder that can no longer be repaired, should be destroyed.

Maintenance
- Climbing material should be serviced in accordance with the manufacturer's requirements.
- Keep climbing material clean and free from debris.
- Treat wooden climbing material with a wood preservative or clear varnish – NOT with paint – at least once per year.

Storage
- Store climbing material in such a manner that sagging is prevented.
- Store climbing material in a cool and well-ventilated room.
- Protect climbing material against weather influences and chemicals.

Inspection
- Check the condition and functioning of climbing material after receipt and before each use.
- Have repairs performed by an expert.
- Have climbing material inspected on the basis of a report by a qualified expert at least once per year.
- Look out for defects such as deformation, wear and tear, etc. in order to ensure safe use and subsequently put a quality mark on the relevant ladder or step.

5.5 Aerial work platforms

Aerial work platforms (AWPs), lifting equipment for persons and possibly goods, are developing rapidly and are being used more and more.

Improper use, or the AWP or its safeguards not being in proper condition can cause the machine to tip over. There is also a risk of pinching and crushing.

Standards and guidelines
- AWPs should be equipped with sufficient support devices, e.g. struts with a proper securing.
- In windy conditions and when carrying highly lifted loads AWPs should only be used in wind forces indicated by the manufacturer, with a maximum of wind force 6 (13.8 m/s). Mobile AWPs that are used strictly indoors should be marked with "Uitsluitend voor gebruik in gesloten ruimten" (Strictly for use in closed spaces).
- An AWP should be clearly marked with the following:
    - trademark;
    - identification number;
    - manufacturing year;
    - maximum permitted work load.
- At operating sites it should be clearly indicated, in Dutch, how the AWP can be used safely, including information on stability. In addition, the operator of any AWPs should be competent and skilled in the use thereof.
- Avoid the risk of crushing.

Regulations for using an AWP

- An AWP should only be operated by persons of at least 18 years old, who are familiar with operating the machine and with the nature of the work to be performed.
- Any persons in an AWP should wear a safety belt when working with heavy machinery and/or if the upper part of the body has to be reached outside of the guard rails.
- A mobile AWP should never be used as a lift.
- An AWP should be serviced periodically and should be submitted to expert inspection at least once per year. Inspection and maintenance should be documented. We recommend using an "AWP book" (such as a crane book when working with cranes).

5.6 Safety cages (for carrying persons)

When working at a height, in rare cases and under strict conditions the work can be performed from a safety cage suspended from a crane or attached to a forklift.

Standards and guidelines

- Using a safety cage is only allowed for:
    - brief tasks that would entail disproportionately high costs if more appropriate means were to be used;
    - tasks of an urgent nature, for which the loss of time poses greater risks than the use of a safety cage.
- A safety cage is not to be used as a lift.
- The following should be present at all times:
    - valid certificates for the hoisting equipment to be used, and a calculation and drawing of the safety cage;
    - a statement declaring that the safety cage has been tested with 125% of the maximum work load;
    - documentation which shows that the safety cage has been periodically (annually) inspected;
    - a user manual for the safety cage. This manual should state under which (limiting) conditions the cage is permitted to be used.
- In total, the crane is not to be loaded in excess of 25% of the permissible work load of a mobile (tower) crane or 75% of a crane in a fixed position or a crane on a crane track.
- The crane operator is not allowed to leave his position, and is not permitted to perform other tasks.
- The safety cage should be provided with warnings signs.
- The safety cage should have:
    - a handrail at 1 metre above the work platform;
    - a guard rail at 70 centimetres above the work platform;
    - a toe board of 40 centimetres high;
      or
    - an enclosed wall or a wall of metal mesh in a steel frame.
- The following should be clearly indicated on the outside of the safety cage:
    - name of the manufacturer;
    - type designation;
    - maximum workload in kg;
    - maximum number of persons;
    - its own weight in kg.

Regulations for using a safety cage

- There should be visual contact between the crane operator and the occupants. Verbal communication should also be ensured (e.g. walkie-talkies).
- Inside the safety cage it is mandatory to wear a safety belt.
- Before use the condition and functioning of the hoisting equipment, the secure attachment of the safety cage to the lifting eye and smooth functioning of the swivel should be checked. These checks and inspections should be documented.

6. Earthworks

Embankments caving in and earth-retaining structures collapsing pose the greatest risks. Which measures should be taken to prevent this strongly depends on the available space and the composition of the soil. The ground water level is also an important factor.

On the premises of (petro)chemical plants gasses and vapours can collect itself in the pit or trench, which are heavier than air. Contaminated soil is also a possibility.

Before starting the excavation work, the presence of gas and water pipes, and electricity lines at or near the pits or trenches that are to be dug out should be checked (refer to the "Kabels- en Leidingen Informatie Centrum" (KLIC), the Dutch Information Centre for Cables and Pipes). Industrial transport pipelines should also be taken into account. Manually digging a test trench is recommended.

Which measures against collapse are to be taken should be considered on a case by case basis. An expert will determine and calculate the necessary measures, taking into account any possible adverse aspects, such as rain, thaw, the ground water level, frost, vibrations, etc.
Earth-moving machines should keep such a distance to the trench or pit, that there is no risk of the embankment collapsing or caving in. Hydraulic excavators and drag lines therefore should be thus positioned that the running gear or tracks are perpendicular to the longitudinal direction of the trench.

- In all stages of the process the stability of the embankments and earth-retaining structures, as well as possible adjoining structures should be ensured, whereby external influences should also be taken into account.
- Embankments should never be undermined.
- If there is a risk of embankments or earth-retaining structures collapsing, the subsequent danger should be countered by way of braces, struts or props or the like.
- If work is performed at locations where hazardous substances (including gasses) can form, safety measures should be taken to mitigate the risk these substances might pose.
- During the work, the formation of hazardous, irritating and flammable vapours, gasses and dust, as well as explosive mixtures thereof, should be prevented by using air. In case this is not or not sufficiently possible, safety measures should have been taken in order to prevent any harmful effects, nuisance or dangers as much as possible (e.g. sufficient respiratory protection, skin coverage, and spark arrestors on equipment).
- If weather conditions lead to unsafe working circumstances, the work is not allowed to be performed.
- Depending on the nature of the work, there should be a safe possibility of escape.
- When using cranes, excavators, bulldozers, etc. attention should be paid to not compromising the safety of the operators and persons in the vicinity.

7. Working during a storm

Tanks, towers, cranes, etc. and installations that are under construction or in demolition should be tethered and shored during periods of strong wind or storms, in order to prevent any damage or any danger to persons.

Working at heights is not allowed with wind forces of **6** Beaufort or higher, measured at the work site. Hoisting and lifting is also not allowed.
It is very important that the person responsible for the project is informed of any expected strong winds or storms.

In case of high wind velocity, the relevant workers should tie down or in any other way secure materials such as timber, multiplex, loose scaffolding boards, metal/plastic sheets, etc., to ensure these will not be blown off and cause damage and/or any personal injury. Special care should be given to ensure that the construction site is protected against and prepared for storms during the weekends or during the holiday period.

8. Barriers

Work sites which pose risks should be purposefully secured.

Examples of this are places where:
- Hoisting work is being performed.
- Radioactive sources are being utilised (e.g. in the case of welding inspection).
- Unsafe situations exist due to obstacles, holes in flooring, missing handrails, etc.
- There is a risk of falling objects.
- High-pressure cleaning is performed.

Examples of barriers are:
- Barrier tape
- Chains
- Crush barriers and site fencing
- Wooden barriers
- Barrier planks and cones

Depending on the nature of the work, there should also be warning signs along with the barriers.

9. Welding and burning

The number of welding processes is enormous, plus it is still growing.
Depending on the process used, one can speak of:
- Electrode welding.
- Welding with CO2 (MAG) and shield gasses (MIG/TIG)
    - plasma welding/cutting;
    - electro-gouging.

Before starting any work, one should familiarise oneself with any specific instructions/requirements from the manufacturer, supplier or client.

Electric welding poses a few risks. For instance:
- Electricity.
- Fires and explosions.
- Exposure to gasses and smoke.
- Exposure to electromagnetic radiation.
- Exposure to harmful noise.
- Climatic factors, such as thermal load.
- Other harmful aspects.

Control measures for electrocution:
- In damp or enclosed spaces, or in cases in which the clothing of the welder is damp, the open-circuit voltage of the welding transformer is to be no higher than 50 Volts.
- A voltage-drop relay should be mounted on the welding transformer for this purpose.
- Use proper power and welding lines, couplings, clamps and welding pliers.
- Do not perform any welding work on a workpiece that is suspended from a crane, unless the workpiece is properly grounded and isolated from the crane hook. The workpiece should also be firmly secured.
- Immediately switch off the main switch of the transformer after finishing the work.

Control measures occupational hygiene:
- Mechanically extract welding fumes, do not do this yourself.
- Use a welding helmet with a fresh air supply if there is insufficient ventilation or when welding stainless steel or alloys.
- Use a proper welding helmet or welding goggles, fire-resistant clothing and gloves.
- When welding on workpieces with paint, zinc, etc. applied to it, this should be removed first because of toxic vapours that may be produced.
- If necessary, place a welding shield to protect against UV radiation.

Control measures for fire when welding or burning:
- Check if a safe work permit is required.
- Remove any flammable materials/substances.
- Protect the environment against flying sparks as well as possible.
- Make sure fire extinguishers are ready at hand and/or call in the fire brigade.
- Keep gas cylinders at a distance from heat sources.
- Secure the cylinders in a vertical position and make sure the key is attached to the cylinder with a chain. Also check whether a flame arrester is present.
- Close off the cylinders immediately after finishing the work.
- Gas and oxygen cylinders should never be placed in an enclosed space.

10. Working with paint

Paint consists of many products and components. While working with paint, its chemical reactivity and thermic stability should be taken into account.
Paints and varnishes are more or less chemically and thermally unstable; this is mostly dependent on the amount and the nature of the binding agents and solvents which have been included in the paint. When working with paint products containing solvents, risks for health and safety should be taken into account.

Regulations for working with paint

- Familiarise yourself with the dangers of the products you will be working with.
- Read the label or refer to the Product Data Sheet. Refer to the relevant appendix for the meaning of the symbols.
- When painting, you should be aware of the dangers of poisoning, intoxication, psycho-organic syndrome (POS), fire or explosion.
- Make sure there is sufficient ventilation and/or extraction present.
- Smoking, eating and drinking is not allowed while working with paint.
- Use the proper personal protective equipment.
- Use effective respiratory protection, if necessary.
- There should never be more paint and solvents present at the work site than needed for one day's work.
- Paint materials and solvents should be stored responsibly in a fire-proof room.
- Empty paint cans and paint remnants should be removed from the work site immediately, and should be stored in such a manner that they can be disposed of at a license holder and that they can be destroyed in accordance with any applicable legal requirements.
- Working with paint in enclosed areas calls for special control measures.

11. Storing hazardous substances

Hazardous substances are understood to mean: chemicals, chemical products and preparations. In general, one can assume that substances which are harmful for the environment, are also harmful to humans.

There are Product Data Sheets available in the office and in the warehouse for all these substances. The Product Data Sheets state the specific dangers and how to act in case of an accident.

Storage
Hazardous substances should be stored in such a manner that they cannot harm, or do not pose any danger or risk to employees or third parties. This means they should be stored as stated in the Product Data Sheet and in accordance with the requirements of environmental legislation and any other applicable legal standards and guidelines.

Possible adverse impacts and risks
Small amounts of gas, vapour or liquid might be released in case of small leaks and temperature changes. Depending on the characteristics of the substance, this can be harmful for your health and the environment. A substance can be absorbed in the body through the mouth and skin, and by inhalation. Health damage can be acute, but can also present itself after several hours. There are, however, also substances of which the consequences do not present themselves for years, even after single exposure.

Fire
A fire produces decomposition products that can be toxic or irritant. In case of violent reactions, such as explosions, people might get hit by flying parts of packaging or other materials. When there is a fire, there is also a greater risk of damage to the environment due to the use of an extinguisher and due to product leakage.

Handling harmful substances
When handling harmful substances, you should be aware of the dangers and the control measures that apply to the relevant substance.
All relevant information necessary for safely handling harmful substances is stated on the Product Data Sheets.

Risk categories (also see appendices)
Besides symbols, so-called R and S phrases can be stated on the packaging. These quickly indicate the particular dangers of the packaged substance, and which precautions are necessary.

12. Ergonomics and safety in the office

Proper working conditions are an important prerequisite for office staff in order to be able to do their jobs well.

The best method for preventing complaints from employees, is to take sufficient account of the various aspects of occupational health and safety when building or renovating office buildings.

The working conditions in offices do not only involve office furniture, but also elements of the working environment and structural design, such as:
- **Interior climate** – comfort, individual settings.
- **Ventilation** – natural and mechanical ventilation.
- **Substances, gasses and vapours** – ozone, harmful substances.
- **Light** – illuminance, types of artificial lighting, colour of lighting, daylight, view, blinds.
- **Sounds**.

A proper desk chair fulfils the following requirements:
- A height-adjustable seat, extra large adjustment range for tall persons.
- An adjustable seat depth.
- A backrest with lumbar support.
- Short armrests.
- A tilting mechanism, with the angle between the backrest and seat remaining unchanged.

In order to realise a good working posture, it is necessary that the height of the work surface is adjusted to the chair, the type of work and the height/measurements of the employee. Each person has their own height and body proportions.

Safety in offices
Even in offices safety requires the necessary attention. The most common accidents in offices are related to falling or tripping. Therefore, make sure of the following:
- Non-slip, level flooring.
- Sufficient space at the work place, with walk and escape routes.
- Markings on glass walls and doors.
- Safe doors.
- Windows that are designed in such a way that they do not pose a risk when they are open.
- Clearly marked first aid kit.
- Emergency signage.
- Clearly marked fire extinguishers.
- All wiring and cables should be placed along the wall in order to prevent any tripping hazard.
- Have repairs to electrical equipment performed by duly authorised persons.
- Do not linger around a closed door that could suddenly be opened.
- Use a safe step ladder of you need to place something above your reach, do not improvise with mobile/revolving chairs, boxes, cabinets, etc.

13. Safety signs

13.1 Prohibition signs

					
No smoking	Fire, open flames and smoking prohibited	No pedestrians	Do not extinguish with water	Not drinking water	No entry for unauthorised persons

					
No transport vehicles allowed	Do not touch				

13.2 Warning signs

					
Flammable substances or high temperature	Explosive substances	Toxic substances	Corrosive substances	Radioactive substance/ Ionising radiation	Suspended loads

					
Transport vehicles	Electric voltage	Danger	Laser Radiation	Oxidising substances	Non-ionising radiation

					
Important magnetic field	Tripping hazard	Risk of falling – Height difference	Biological risk	Low temperature	Harmful or irritant substances

13.3 Instructions signs

					
Eye protection mandatory	Safety helmet mandatory	Safety harness mandatory	Ear protection mandatory	Respiratory protection mandatory	General prohibition

					
Safety shoes mandatory	Safety working gloves mandatory	Safety suit mandatory	Face protection mandatory	Mandatory pedestrian crossing	

13.4 Emergency signs

					
Escape route Emergency exit		Direction to be followed	First aid	Stretcher	Emergency shower
					
Eyewash	Telephone for emergencies and first aid				

13.5 Fire-fighting signs

					
Fire hose	Fire escape ladder	Fire extinguisher			

13.6 Risks of hazardous products and preventive measures

Hazardous products are classified based on the risk. The physical properties and aggregate state of the product largely determine the associated risks. However, many products present a combination of risks.
For instance, they can be both flammable and toxic.

The table below lists the types of hazardous products, their risks and the appropriate preventive measures.

Explanation	Description of the risks	Examples of products	Preventive measures
 Corrosive (C) (Caustic)	- Corrosive substances damage tissues upon contact and can lead to severe burns	- Blocking agents - Sulphuric acid for batteries - Strippers and toilet cleaning agents - Dishwasher detergents (in liquid state)	- Store products in well-sealed containers (with childproof lids) - Keep out of reach of children, do not place in windowsills - When used, skin, eyes and mucous membranes should be protected against splashes - Pour or scatter carefully - Diluting: first pour water in the receptacle and then the product - Wear gloves and goggles - Do not mix - Proper hygiene is necessary after use: carefully wash hands, face, etc. - In case of an incident: rinse abundantly with water for at least 15 minutes - Corrosive products in spray cans pose a greater risk; we urge you to avoid spray cans as much as possible
 Irritant (Xi)	- Irritant products cause skin irritation and inflammations after repeated contact with the skin or mucous membranes	- Bleach - Turpentine - Polyester mastic	
 Toxic (T)	- Harmful and toxic products have an impact on one's health, even in relatively small amounts	- Methanol (methyl alcohol), stain removers - Sprays for impermeabilisation - Disinfectants (creolin) - Pesticides	- Wear personal protective equipment to avoid contact (gloves, overalls, face shield, safety goggles and a mask) - Work in well-ventilated spaces or in the open air; use extraction or ventilation

Very toxic (T+)	- If even a very small amount is harmful (or even lethal), the symbol for "Toxic" is used	- Carcinogenic substances: benzene, ethylene oxide, zinc chromates, asbestos	- Proper hygiene: wash hands, do not eat and smoke while in use - Products in spray cans are more dangerous (easier to inhale) - Keep out of reach of children
 Harmful (Xn)	- These products enter the body via contact with skin, by inhalation and ingestion through the mouth	- Stain removers, trichloroethylene - Cleaning thinners, paint thinners - Wood preservatives and compensating products - Paint strippers	
 Dangerous for the environment (N) (Environmentally hazardous) (Ecotoxic)	Polluting substances (pollutants): - Very toxic to aquatic and soil-dwelling organisms - Toxic to fauna - Dangerous for the air, e.g. the ozone layer (skin cancer, cataracts)	- Certain active ingredients in pesticides (organochloric compounds: lindane, parathion) - CFCs (chlorofluoro carbons) - Certain solvents (thiodicresol) - Certain heavy metal compounds (copper methanesulfonate) - PCBs and PCTs	- Treat the product and remnants thereof as hazardous waste in accordance with the law - Avoid or limit pollution of the environment (discharging in water, soil and air) as much as possible - Use environmentally-friendly alternative products and techniques as much as possible

Explanation	Description of the risks	Examples of products	Preventive measures
 Explosive (E)	An explosive substance may explode at a certain temperature, upon contact with other substances, or in case of shocks or frictions (static electricity)	- Many consumer goods available in spray cans are potential bombs (even when empty) if they are heated to a temperature of > 50°C: hairspray, air fresheners, window defrosters - Gasses (hydrogen, ethylene, propane, butane, LPG)	- Avoid overheating and shield from direct sun (even in a car) - Never place in the vicinity of heat sources, such as stoves, heating devices, and lamps - Do not smoke or make a fire when in use
 Highly flammable (F) Extremely flammable (F+)	- F: highly flammable substances ignite in the presence of a flame, a heat source (hot surface) or a spark - F+: extremely flammable substances can be very easily ignited by an ignition source (flame, spark) even under 0°C	- Petroleum - Methyl alcohol, turpentine, acetone - Paint in spray cans, metallic paint - Window defrosters, air fresheners	- Store the products in a well ventilated room - Never use in the vicinity of heat sources, hot surfaces, glowing sparks or an open flame - No smoking - Wear heat-resistant clothing (no synthetic fibres) always keep a fire extinguisher within reach - Do not store flammable substances (F symbol) together with fire accelerating, oxidising substances (O symbol)
 Oxidising agent (O) (Fire accelerant)	Oxidising products (substances with a high oxygen content) strongly facilitate the combustion of flammable (e.g. combustible) substances	- Hydrogen peroxides - Chlorates, strong nitric and perchloric acids	