

## General Topics

# Working Safely

## Guide for New Employees



**A 005e**

**Edition 6/2023**

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## Inhaltsverzeichnis dieses Ausdrucks

Cover sheet .....	3
VISION ZERO .....	4
1 Working Safely Right from the Start .....	5
2 General Safety Instructions .....	6
3 Hazardous Substances .....	7
4 Work Equipment .....	9
5 Prevention of Fires and Explosions .....	11
6 Storage and Transport .....	13
7 Electric Resources .....	15
8 Personal Protective Equipment .....	16
9 First Aid .....	17
Picture Credits .....	18
Miscellaneous .....	19

The paper at hand is focussed on essential items of specific regulations and rules. Therefore, it does not mention all measures required for an individual case. Moreover, the state of the art and occupational medicine as well as the legislative basis may have changed since the issue of this paper.

This paper has been compiled with great care. However, this does not absolve the employer or an authorised person from the duty and responsibility of checking the information to be complete, correct and up to date.

The Act on Occupational Safety and Health uses the term “employer“, the Social Security Code VII and the Accident Prevention Regulations of the Accident Insurance Institutions say “entrepreneur“. Both terms are not completely identical, because an entrepreneur does not necessarily employ workers. This fact is irrelevant for the topic treated in this Code of Practice, and the term “entrepreneur“ is used here.

## VISION ZERO

# VISION ZERO.

ZERO ACCIDENTS – HEALTHY WORKING!

**VISION ZERO** is the vision of a world without occupational accidents and work-related illnesses. In this connection the avoidance of lethal and severe occupational accidents and illnesses is given highest priority. The goal of a comprehensive culture of risk prevention is VISION ZERO.



Further information concerning the VISION ZERO Prevention Strategy is available at: <https://visionzero.global>

This Code of Practice particularly deals with the Golden Rule  
"Improve Qualifications – Develop Competence"

# 1 Working Safely Right from the Start

The workplace is new to you and your job involves working with machinery, work equipment as well as materials and substances you are unacquainted with.

Knowledge and sufficient practice is lacking to carry out the new tasks independently and safely.

The following instructions will help you to work safely right from the start.

**Working safely means: working without endangering oneself or colleagues!**



Important points for safe working are summarized in several sections below:

- General Safety Instructions (Section 2),
- Hazardous Substances (Section 3),
- Work Equipment (Section 4),
- Prevention of Fires and Explosions (Section 5),
- Storage and Transport (Section 6),
- Electric Resources (Section 7),
- Personal Protective Equipment (Section 8),
- First Aid (Section 9).

Read the sections which apply to your tasks; memorise the instructions and act accordingly!

**Memorise the following rules:**

- Carry out only the task you were told to do!
- Carry out the task precisely the way you have been instructed to by your supervisor!
- Comply with the operating instructions of your workplace!
- Ask questions, if you are unsure!
- Report lacking safety measures!

When the settling-in period is finished, you will have learnt how to work independently and will be aware of which activities can be performed without the supervision of your team leader.

## 2 General Safety Instructions

- Meet the Safety Advisor responsible for your working area and get to know who the first aiders are.
- Observe the mandatory and prohibition signs like:
- Notice the location of emergency showers, eye showers, breathing apparatuses, fire extinguishing arrangements (e. g. fire extinguisher, fire alarm), First Aid installations and assembly stations.
- Memorise the location of the emergency exits and the pathways of the escape routes.

Combination of the Sign E001 "Escape Route/Emergency Exit" and a direction arrow



- Keep emergency exits and escape routes clear of obstacles.
- Ensure free accessibility of traffic routes.
- Only keep working tools at your work station which are needed for the work at hand.
- Comply with the operating guidelines faithfully.
- Do not enter plants or parts of plants you are not involved in. Observe bans on access.
- Eat, drink and smoke only where permitted.
- Always be alert during working hours:
  - Do not drink alcohol during working hours.
  - When taking medication, consider whether your working ability is impaired, e. g. with regard to driving and control operation, and talk to your superior, if necessary.
  - Observe existing works agreements concerning alcohol and further intoxicating or addictive drugs.
- Eliminate the risk of tripping or slipping immediately, e. g. by removing objects or spilled oil from traffic routes.
- Use apparatuses, work equipment and safety devices according to regulations.
- Be sure that all sharp or pointed objects like knives are safely sheathed.

- Do **not** wear watches, rings, necklaces, bracelets, ankle chains or other pieces of jewellery during work, if they may pose a risk, e. g. for transport work or working with unprotected moving parts of machinery. If you have long hair, wear hair protection.
- Only use ladders and step stools that are fully operational and without defect. Stools, chairs, barrels, boxes, sacks or similar objects are no replacement for ladders and step stools.
- Note that certain tasks like open flame operations, entering a container or electromechanical works may be executed with written permission only (permit-to-work form). This includes the execution of the safeguard measures required.

### 3 Hazardous Substances










- Always use the mandatory protective clothing and personal protective equipment like goggles or protective gloves.
- Use the safeguard measures available, e. g. exhaust systems.
- It is essential to be aware of:
  - Properties of hazardous substances  
Examples for properties of hazardous substances: hazardous substances may catch fire; they may be corrosive, toxic or carcinogenic. Some substances may react very fiercely when brought together, e. g. acids with bases or oxygen with fat or oil.
  - Suitable safeguard measures in the context of the hazardous substances you have to handle.
- As an expectant or breastfeeding mother, you are not allowed to handle certain hazardous substances. There are also restrictions for adolescents. Consult your superior. As an expectant mother indicate your pregnancy early.

Information on hazardous substances and safeguard measures can be found in the operating instructions.

- Use filling aids like barrel pumps, carboy tipper or dosing devices.
- Before dealing with hazardous substances, make sure you have been thoroughly briefed by your supervisor.
- Wash before the consumption of food and drink or before smoking.

As a rule, substances with hazardous characteristics have to be labelled with danger symbols.

Figure 1: Simplified overview of the new labelling system according to GHS

	Explosive (on its own accord or due to warming)
	Flammable liquids, solids, aerosols or gases, self-igniting due to large amounts or due to warming or creating self-igniting gases when combined with water
	Generating fire or reinforcing fire, (strong) oxidizing agent
	Pressurised gases or cold liquefied gases
	Caustic, severe eye damage, corrosive for metals
	Life-threatening, toxic
	Harmful, irritating, sensitising the skin, damaging the ozone layer
	Substances which are carcinogenic, mutagenic or toxic to reproduction (CMR), damaging organs, sensitising the anatomical airways or life-threatening damages of the lung when swallowed up
	Dangerous to bodies of water



This labelling according to CLP Regulation has been introduced into the EU step by step. This implements the Globally Harmonized System (GHS) of the United Nations.

- Observe the hazards listed in the operating instructions and implement the safeguard measures given.
- Read carefully the label of the hazardous substance with the help of the hazard statements (H-Statements) and precautionary statements (P-Statements). The safety data sheets of the producer also give further references concerning hazardous substances.
- Immediately inform your supervisor, when the working material is not properly parcelled, labelled or in an improper state.
- Your working area should be at all times clean and tidy in order to prevent spreading of hazardous substances.
- Never fill hazardous substances into vessels which are made for food storage, or any container which might be mixed up. Contrariwise do not store food or drinks in containers made for hazardous substances.

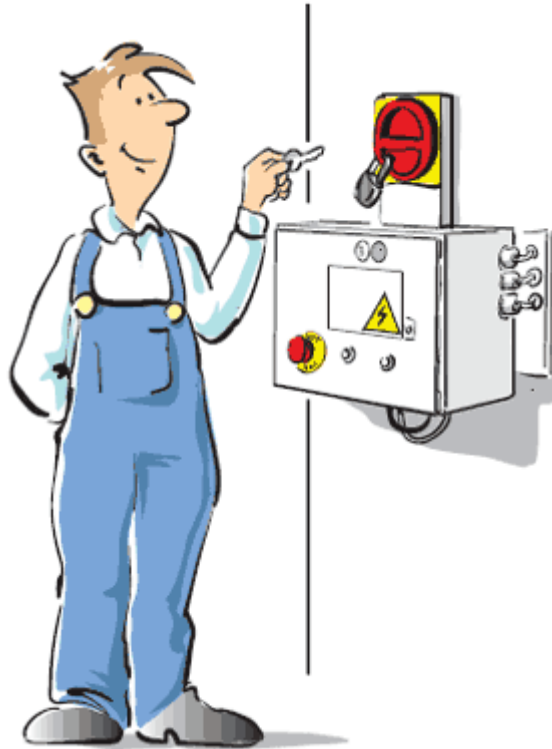
Figure 3: Container filled with Methanol



## 4 Work Equipment

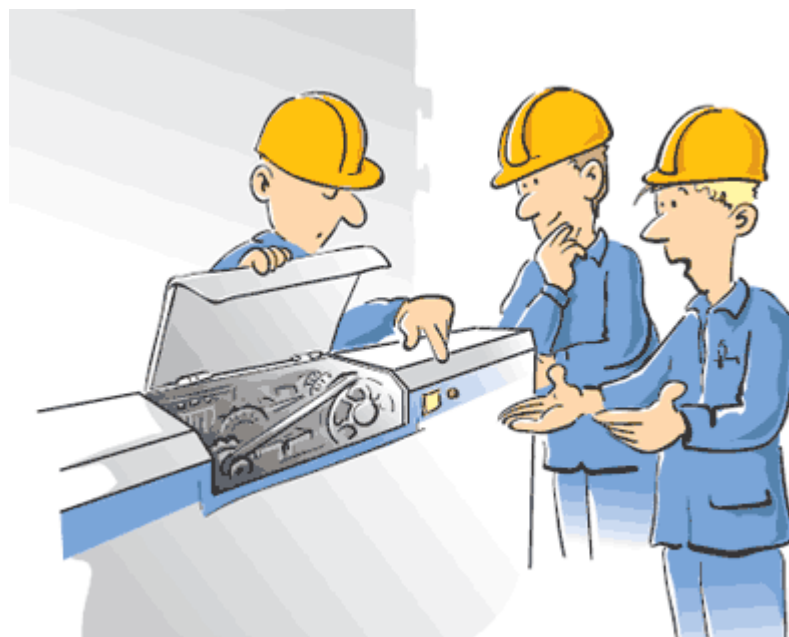
- Do not work on machinery or work equipment, when unfamiliar with their operation or without supervision.
- Use facilities and work equipment only for their intended purpose.
- Do not try to repair deficiencies, defects or service failures without authorisation.
- Before starting work, be sure about the proper function of the safety and protective equipment, e. g. emergency stop devices (emergency stop switch).
- Power up machines only, when the entire danger zone is visible. If this is not possible, check whether the danger zone is free of persons.

Figure 4: Securing against restart with a lockable main switch



- Only carry out cleaning and maintenance work on facilities which are not in operation and be sure that the power switch has been properly secured.
- Perform a visual inspection as well as a basic functional check to ensure the proper and safe condition of operational facilities and work equipment before use.
- If your safety or health is at risk due to deficiencies/defects or hazards which you are not permitted to eliminate notify your supervisor immediately and do not commence work until a remedy has been provided.
- Do not use faulty machinery or work equipment.

Figure 5: Protective function of control guards



## 5 Prevention of Fires and Explosions

- Get acquainted with the emergency measures valid in the event of fire.
- Inform your supervisor before starting work if you use medical devices such as hearing aids or insulin pumps.
- Keep the fire load at the workplace as low as possible:
  - Only store the daily amount of input material at the workplace
  - Dispose of waste promptly.

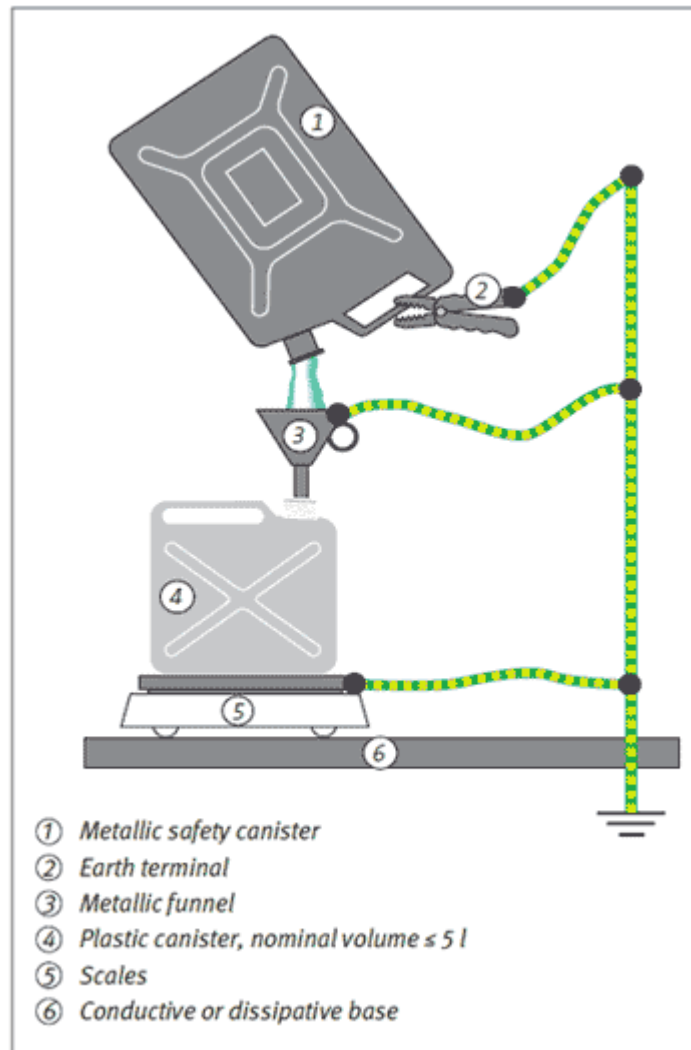
D-W 021:  
Warning Explosive Atmosphere



- Used cleaning cloths may only be collected, stored and transported in robust, tightly closed containers, e. g. containers made of metal or high-molecular low-pressure polyethylene. Containers for cleaning rags which are moist with solvents must be dissipative or conductive and earthed.
- Execute open flame operations with written permission only.
- In the event of fire observe the potential suffocating effect of fire-extinguishing agents.
- Consult your supervisor whether you work in a hazardous explosive atmosphere (divided into “Zones”). Pay attention to warning signs.
- If you do work in a hazardous explosive atmosphere, ask your supervisor about working guidelines.
- Avoid ignition sources of all kinds in a hazardous explosive atmosphere. If this is not possible, e. g. for welding or cutting work, ask how to proceed in order to prevent a risk of explosion (release form for open flame operations).
- Only use devices authorised for your work area. The adjacent symbol provides an initial indication of this.
- Comply strictly to not smoking. Also observe the prohibition sign “No Open Flame; Fire, Open Ignition Source or Smoking Prohibited!”
- Wear dissipative footwear in Zone 1 or, if instructed, in potentially explosive atmospheres in any zone. Note that these shoes must not be altered independently, for example, by adding personal insoles.
- Earth containers, devices (e. g. filling funnels) and pipes. Failure to do so may result in electrostatic charges and electrostatic discharges. The spark produced by an electrostatic discharge is a possible source of ignition.
- In potentially explosive atmospheres, only use the designated objects or equipment. This applies to vessels and equipment for transferring liquids as well as powders. Observe the guidelines for earthing measures and keep the prescribed order.

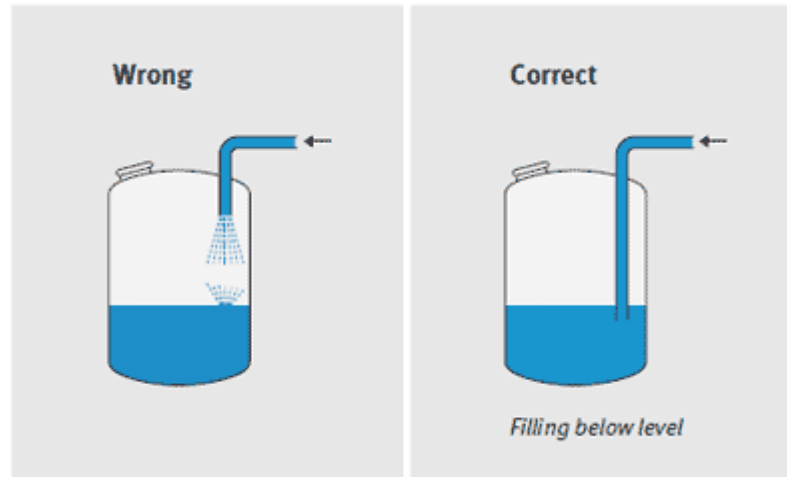


Figure 6: Filling of a small plastic canister in Zone 1



- Be sure that ambient and processing temperature of flammable liquids do not exceed the flashpoint.
- Take care that vessels with volatile flammable organic liquids are always kept closed. Do not expose these vessels to the sun or place them near the heater.
- Avoid splattering when filling or transferring flammable organic liquids. Figure 7 illustrates examples.
- Avoid the formation of dust when filling or transferring powder. Safety measures are:
  - Let the container run dry very slowly.
  - Transfer carefully with a shovel.
- Never shake out an emptied/depleted sack.
- Remove dust deposits e. g. by liquid purification or with an explosion-proof vacuum cleaner.  
Warning: Do not use compressed air to clean!

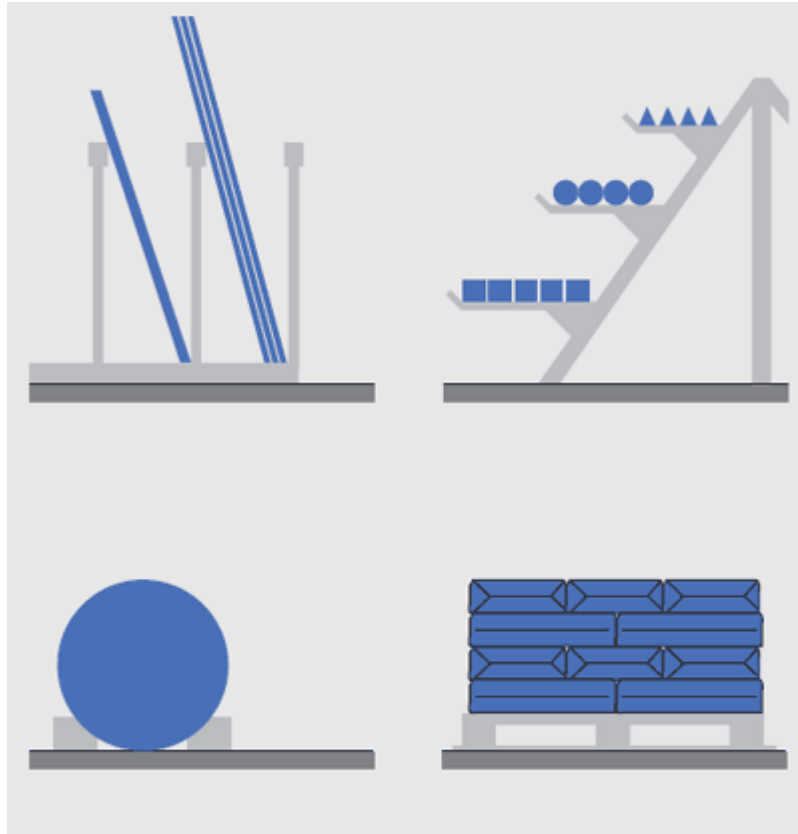
Figure 7: Correct transfer of flammable organic liquids



## 6 Storage and Transport

- Always keep access to emergency exits, fire extinguishers, emergency showers and further safety installations as well as switches, valves and further controls clean.
- Keep emergency and traffic routes free from obstacles.
- When storing and stacking, be sure that all articles are secured to minimize the risk of objects falling down, falling over or rolling away.

Figure 8: Safe storage and stacking of objects



- Use designated traffic routes only.
- Do not touch rolling barrels at the drum edge.
- Transport fragile vessels filled with hazardous substances in buckets or transport boxes.
- Lift loads from a squatting position and keep the spinal column as straight as possible.
- Do not linger below hanging loads.
- Wear personal protective equipment made available by your employer, e. g. safety shoes or a safety helmet.

Figure 9: Transport cart for use on steps



- Use adequate means of transport only.
- Only use means of transport such as industrial trucks or cranes and lifting devices if you are instructed or you have the corresponding driving licence.

## 7 Electric Resources

W012: High Voltage



- Perform a visual check of the electrical resources before use:
  - the connector cable must not be damaged,
  - the kink protection (grommet) must be at the inlet of the connecting lead into the device,
  - the cable jacket of the connecting lead must not be ripped out of the machine,
  - the insulation must not be damaged,
  - switches, connectors, sockets and machine housings must not have any visible external damage.
- Damaged equipment must not be used.
- It is essential that connecting leads are always installed safely to minimize the risk of tripping and the cable being damaged.
- Don't repair damaged electrical resources without authorisation. Report the damage to your supervisor.

- Only disconnect switched-off devices from the network. Do not unplug devices under load.
- If you want to remove a connector out of the socket, never pull from the cable, but from the connector only.
- In potentially explosive areas only approved explosion-proof electrical resources may be used. In case of doubt, ask your supervisor before usage.

Figure 10: Unplugging safely



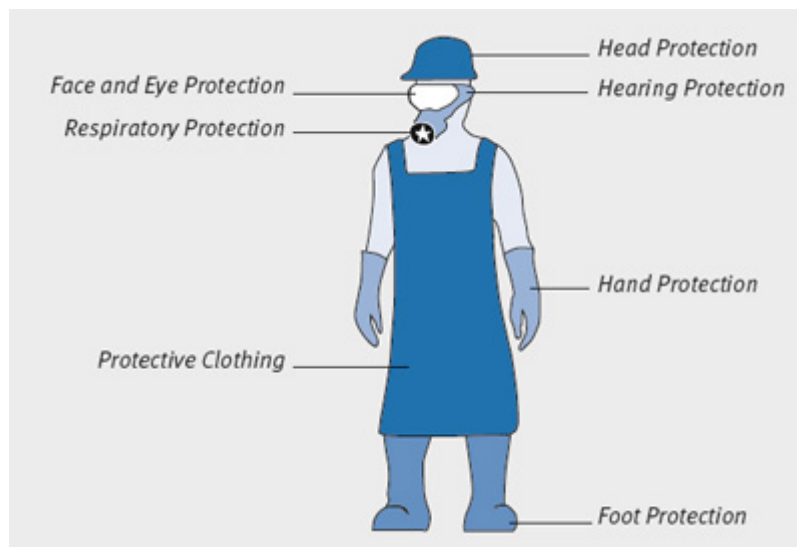
## 8 Personal Protective Equipment

- Always use the personal protective equipment required for defined working areas or tasks. Observe respective mandatory signs. Personal protective equipment is e. g.:
  - Head Protection
  - Hearing Protection
  - Face and Eye Protection
  - Respiratory Protection
  - Protective Clothing
  - Hand Protection
  - Foot Protection

Further information can be found in the corresponding operating instructions.



Figure 11: Personal Protective Equipment



- Learn how to use the personal protective equipment provided and how to handle contaminated personal protective equipment.
- Avoid the spreading of hazardous substances by following the instructions of the supervisor.
- Your working clothes may protect you as well. Clothing should be fastened. Remove clothes immediately if they have been contaminated with hazardous substances.
- When working with hazardous substances like acids, alkaline solutions or solvents, keep in mind that not every protective glove is suitable for any hazardous substance. Generally for activities with liquid hazardous substances only non-absorbent and tight gloves made of adequate plastics or rubber types come into consideration. Gloves made of cloth or leather are completely inadequate. Information on suitable protective hand protection can be found in the operating instructions and in the hand and skin protection plan.
- Suitable breathing apparatuses protect you against the inhalation of harmful concentrations of gases, vapours, mist or dust. Breathing apparatuses may only be used after a proper training programme (theoretically and practically) has been completed.
- Hearing protection helps to avoid noise-induced deafness. It has to be worn in noisy areas. These areas are recognised by the mandatory sign "Use Hearing Protection".




M003: Wear ear protection

## 9 First Aid

E003: First Aid



- Find out about the first-aid measures needed in the event of an occupational accident.
- Report each accident and near-accidents to the superior, so measures may be adopted immediately.
- Do not forget, you must write down all first-aid measures. These documents must be stored in the company files.
- Leave the danger zone if a leak of harmful substances is suspected. Warn your colleagues about this.
- If you intend to save injured persons from the danger zone, protect yourself against contact with hazardous substances (respiratory protection, protective gloves etc.).
- Initiate immediate medical aid. Tell the doctor the name of the chemical substance and the first-aid measures that have already been executed. Any information may be helpful for the doctor (Safety Data Sheet or Code of Practice about the hazardous substance).
- It is recommended to take a course as a first aider to be able to efficiently give first aid.
- Do not forget to cordon off the place of accident immediately in order to avoid additional mishaps.

Emergency Numbers	
<b>Fire</b>	112
<b>Accident</b>	
	
In case of emergency give the following information:	
<b>Who</b> is calling?	Your name
<b>Where</b> did it happen?	Describe place of accident as precisely as possible
<b>What</b> happened?	Short description of accident
<b>How many</b> injured persons?	Number of injured persons
<b>What kind of</b> injuries?	Notably describe lifethreatening injuries
<b>Waiting for</b> queries	Replace receiver only after the control centre has finished the call

## Picture Credits

The pictures in this Code of Practice are for illustrative purposes. They do not involve any kind of recommendation.

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Figure 9:  
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