

INSTRUCTIONS FOR EXHIBITORS, SERVICE PROVIDERS AND STAND CONSTRUCTORS

Exhibitors presenting **exhibits with potential hazards** at ACHEMA must have risk analyses for these exhibits and be able to present them on site on request (see section 4.7.8 of the ACHEMA [Technical Guidelines](#)).

The risk analysis is the **systematic determination and evaluation of hazards and exposures** faced by employees, service providers and visitors during ACHEMA. The risk analysis also includes **definitions of necessary protective measures** against the identified hazards.

If such a **risk analysis for an exhibit is not yet available**, this document suggests a procedure for a step-by-step creation of a **simplified tabular risk analysis**.

Step 1: Determine the possible hazards and exposures (column 2)

Determine the specific hazards and exposures on site. Possible categories can be

- **Mechanical hazards** (unprotected moving machine parts; parts with dangerous surfaces; means of transportation; uncontrolled moving parts)
- **Electrical hazards** (dangerous body currents; electric arcs; electromagnetic fields)
- **Hazards due to substances** (harmful effects of gases, vapors, aerosols, dusts, liquid and solid substances; skin exposure; other effects and dangerous interactions due to possible mix-ups of substances)
- **Fire/explosion hazards** (fire hazards from solids, liquids, gases; hazards from explosive atmospheres; thermal explosions (continuous reactions); physical explosions and exothermic runaway reactions; explosives; other explosive substances (e.g. peroxides))
- **Biological hazards** (bacteria (e.g. Legionella, E. coli), viruses, fungi)
- **Hazards due to special physical effects** (noise; ultrasound; whole-body vibration; hand-arm vibration; non-ionizing (optical) radiation; ionizing radiation; electromagnetic fields, hot and cold media, cold work, heat work; electrostatics; overpressure/underpressure)

When determining hazards and exposures, also take into account other activities like **transportation, storage** and **possible accidents**, not only the operation of the exhibit.

1	2	3	4
No.	Possible hazards and exposures	Risk	Protective measure

Step 2: Assessing the risk (column 3)

Laws, regulations and associated technical rules or standards contain specifications that must be used in the analysis. The ACHEMA [Technical Guidelines](#) contain important references to selected laws, regulations and technical rules. These can be, for example, **limit values** for hazardous substances and noise exposure. In the absence of specific specifications, assess the risks associated with the activities connected to the hazards and exposures you identified.

The analysis takes into account the **probability of occurrence** and the possible **severity of the injury or illness**. A **risk matrix** can be used here. If you come to the conclusion that a hazard or exposure is associated with an **acceptable risk**, document this as well.

1	2	3	4
No.	Possible hazards and exposures	Risk	Protective measure

Step 3: Defining protection targets and measures (column 4)

Specific **health and safety measures** are entered in column 4. Occupational health and safety measures that have already been implemented can also be documented in this column. The following sequence must be considered when selecting the protective measures:

1. substitution (e.g. replacement of hazardous substances)
2. technical protective measures (e.g. covering hazardous points)
3. organizational protective measures (e.g. minimizing the time spent in noisy areas)
4. personal protective measures (e.g. personal protective equipment)
5. behavioral protective measures (e.g. instructions, training programs).

The range of protective measures decreases from points 1 to 5. The feasibility of protective measures increases from points 1 to 5. The aim is to reduce the risk to an acceptable level.

1	2	3	4
No.	Possible hazards and exposures	Risk	Protective measure

Helpful literature:

Code of Practice A016e: Risk Assessment – Seven Steps to the Goal
https://res.jedermann.de/data/downloads/A016e_Gesamtdokument.pdf

General Topics A017e: Risk Assessment Hazard Catalogue
https://res.jedermann.de/data/downloads/A017e_Gesamtdokument.pdf