# Safety Guidelines

**Compressed Gas Cylinders**

 **University of Würzburg**



Office of Occupational Health and Safety, Animal Welfare and Environmental Protection

 Last update:

 Workplace/activity:

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| **Scope** |
|  | Safe storage and transportation of cylinders containing flammable, oxidising, toxic, corrosive, and/or inert compressed gases. |
| Safety, health, and environmental risks |
| L:\StabsstelleAU\Fischer\Ingrid\Betriebsanweisungen\Symbole\W00.WMF | * Highly toxic.
* Fire, explosion, or toxic release hazards caused by leaking valves.
* Gas cylinders may burst when heated in a fire; projectile hazards when gas is escaping rapidly.
* Highly flammable.
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| Safety practices |
|  | * Always check a cylinder’s test expiry date before use; if that date has passed, do not use but return cylinder to supplier.
* Appropriate hazard warnings must be clearly labelled on the cylinders (hazard and precautionary statements).
* Cylinders must never be permitted to be exposed to high temperatures.
* Cylinders must be stored in a vertical position and must be strapped or secured to prevent falling or rolling.
* All cylinders must be stored with the protective caps in place.
* When cylinders are being moved from one area to another, a suitable hand cart must be used, cylinders must be secured to the cart with a chain or belt, and the protective caps must be in place.
* A gas mask with an appropriate filter must be kept available for immediate use at all times when transporting cylinders containing highly or extremely toxic gases.
* Flammable gases (red cylinders) must be stored at least 2 metres from oxidisers (e.g. oxygen), e.g. at opposite ends of the storage area and separated by cylinders containing non-flammable gases.
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| **What to do in the event of equipment failure or leakage** |
|  | * Move injured persons to a safe area, but do not put yourself in danger. Alert everyone who might be in danger.
* What to do in the event of a fire: Move gas cylinders to a safe area. If a cylinder cannot be moved to a safe area, go to a safe location and cool the cylinder with water until the fire brigade arrives. Alert emergency responders to the presence of compressed gas cylinders.
* Nearest extinguisher:
* Nearest gas mask:
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| **What to do after an accident** |
|  | * **Eye contact:** Rinse opened eye under running water for several minutes. After that, seek medical attention from an ophthalmologist.
* **Skin contact:** Wash with plenty of water. Remove contaminated clothing.
* **Inhalation:** Keep victim’s airway clear. Move victim into fresh air. Administer a dexamethasone spray (Auxiloson). When necessary: Perform mouth-to-mouth resuscitation.
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| **Maintenance, waste disposal** |
|  | Hazardous waste must be disposed of in properly labelled, appropriate containers. A request for disposal must be made at the Office of Occupational Health and Safety, Animal Welfare and Environmental Protection, Mr. Heiko Richter. |

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Date Signature

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| June 2021 |