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| No: G-03-EStatus: 11/18Work Area: Institute for Biochemistry | **Operating Instructions for Work with Autoclaves** | University of Cologne |
| **1. APPLICATION AREA** |
| Sterilization of working equipment (laboratory glassware, filters, bottles) as well as liquids, consumables and contaminated waste in steam sterilizers or autoclaves |
| **2. HAZARDS FOR HUMANS AND ENVIRONMENT** |
| * Scaling/burns on steam, hot liquids or objects.
* Infection by sterilized material, unsterilized material, steam or exhaust air filter.
* Damage to health caused by hazardous substances in sterilised goods.
* Damage to posture due to poor posture during loading/unloading.
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| **3. PROTECTIVE MEASURES AND RULES OF CONDUCT** |
| * Autoclaves may only be operated by instructed persons.
* When handling sterilised goods and operating the autoclave (especially when opening it), suitable personal protective equipment must be worn (lab coat, protective goggles/heat-resistant gloves).
* **Flammable liquids, heat-sensitive materials and chemicals that release toxic gases when heated must not be autoclaved.**
* Before starting, check the autoclave for damage (e.g. locking mechanism,sealings).
* Position the temperature sensor correctly: For liquids in this or a filled reference vessel of at least the same size; for solids in the pressure vessel
* Close autoclave; start device.
* Garbage bags must be autoclaved when wide open. Vessels must not be tightly closed so that the water vapour can circulate during the autoclaving process.
* **Dry waste may only be autoclaved in autoclaves with a fractionated pre-vacuum process.**
* Before opening the sealing mechanism, check that the autoclave is pressure-free (pressure gauge).
* **Never force open the autoclave!**
* When autoclaving liquids, do not open the lid until the liquid temperature has fallen below the boiling temperature (water < 80° C).
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| **4. BEHAVIOR IN CASE OF DANGER** |
| * In case of damage to the device: Switch off and inform the person responsible for the laboratory area.
* Have damage repaired by qualified personnel only.
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| **5. FIRST AID** | **Emergency: 01-112** |
|  | * Rescue injured persons from danger areas and provide first aid
* Make an emergency call and request first-aiders
* Also enter small injuries in the injury’s logbook
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| **6. MAINTENANCE** |
| * Half-yearly functional test by means of bioindicator test.
* After each maintenance/repair: Functional test by bioindicator test before the re-commissioning.
* Repair only by authorized and instructed persons.
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| Next review date: 10/2019 |  |
|  | Signature of Management |