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| No: G-03-E Status: 11/18 Work 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. | | | | | |
| **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). | | | | | |
| **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. | | | | | |
| **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 | | | | |
| **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. | | | | | |
| Next review date: 10/2019 | | |  | | |
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