

## Operating Instructions Ultracentrifuge

Building: SupraFAB

Area of application:  
Freie Universität Berlin  
Altensteinstr. 23a



### Operating Instructions – Working with Beckmann Coulter Optima MAX-XP

According to Occupational Health and Safety Regulation

Work space: SupraFAB

Work station: Room 114.7

#### Hazards for people and the environment



Risk of rotor breakage if the rotor is not maintained properly!

Risk of release of hazardous substances and/or formation of hazardous aerosols if rotors and/or centrifuge buckets break!

Risk of fire and explosion when handling flammable substances!

Hazards due to failure of the automatic lid lock.

Danger due to lack of stability of the centrifuge.

Danger of parts flying off, e.g. if the rotor breaks!



#### Protective measures and rules of behaviour



Only instructed persons entered in the centrifuge logbook may work on the centrifuge!

The following must be documented in the centrifuge logbook: each centrifuge run per rotor, number of runs per rotor, operating hours, revolutions per minute. The centrifuge logbook must be kept at the place of operation.

Before operation, the rotor, centrifuge buckets/tubes and their closures must be visually inspected to ensure that they are free of corrosion and undamaged. Sealing rings must also be checked for integrity and proper fit!

Centrifuges with defects must not be operated!



Only use rotors and centrifuge buckets/tubes that are approved for operation with this centrifuge (see operating instructions)!

Rotor with samples of RG2 may only be opened under the sterile bench.

The permissible load and speed must not be exceeded (see operating instructions).

**Rotors must be loaded evenly (+1- 100mg!!! see SOP) so that no impermissible imbalance occurs and there is no risk of imbalance occurs and the risk of liquid leakage is minimized!**



Select the working height of the centrifuge so that the rotor chamber is visible! Vessel breakage and leaks should be visible before the centrifuge lid is opened!

The centrifuge must not be opened or tampered with during operation!

Clean the rotors regularly according to the manufacturer's instructions! The cleaning must be documented with details of the agent used!

#### Behaviour in case of danger



Inform the person responsible for the area immediately in the event of faults! Switch off the machine!

**In case of fire: Keep calm!**

**Call the fire department on 112! Inform the central control room on 55112!**

Warn employees!

Fight the fire with a CO2 extinguisher! Pay attention to self protection!

#### First aid

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Inform first aiders (see alarm plan). Treat minor injuries immediately and enter them in the first aid book.  
 In the event of more serious injuries, consult a general practitioner or call an emergency doctor.  
 Inform the workshop management.  
 Rescue service: **112**

**Proper disposal- service**

**The centrifuge must be inspected by an expert once a year** in operating condition. The GUV R 500 and the test book for centrifuges (BGG 934) must be observed! All work must be noted!  
 Waste disposal via unit III 4/41! C  
 Repairs and inspections may only be carried out by authorised, qualified persons.

**For further questions, please contact the Occupational Safety department**  
**Tel.: -54495**

Date and signature of division manager: