

# Operating instructions in accordance with § 9 of the German Ordinance on Industrial Safety and Health (Betriebssicherheitsverordnung)

Company: Freie Universität Berlin

Workplace: AG Haag

FB BCP, SupraFab Altensteinstraße 23a,  
Biolab R114.7

Activity: Centrifuging

## Scope of application

**Centrifuge (Manufacturer: Beckmann Coulter Optima MAX-XP,  
Type: Ultracentrifuge)**

## Dangers for man and environment



Danger of rotor breakage in case of improper care of the rotor!  
Release of hazardous substances and/or formation of hazardous aerosols if rotors and/or centrifuge buckets break!  
Hazard of fire and explosion when handling flammable substances!  
Risk of danger to failure of the automatic lid lock.  
Risk of danger to insufficient stability of the centrifuge.  
Risk of danger of parts flying off, e.g. in case of rotor breakage!

## Protective measures and rules of conduct

Only instructed persons entered in the centrifuge log book 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 run, revolutions per minute. The centrifuge log book must be kept at the operating site.

Before operation, the rotor, centrifuge buckets/tubes and their closures must be visually inspected to ensure that they are free of corrosion and intact. 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 in this centrifuge (see operating manual)! Rotor with samples of RG S2 are only to be opened under the sterile bench.

Permissible load and speed must not be exceeded (see operating manual).

Rotors are to be loaded evenly (+/- 100mg!! see SOP) so that no unacceptable 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-rupture and leakage should be detectable even before opening the centrifuge lid!

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

Regular cleaning of the rotors according to the manufacturer's instructions! The cleaning must be documented with details of the used agents!

Do not smoke, eat or drink at the workplace!



## Behavior in case of malfunctions and danger



**In case of malfunctions, inform the responsible person for the area immediately! Switch off the machine!**

In case of failure of the lid lock or severe imbalance, the operation of the centrifuge must be stopped immediately and the supervisor must be informed.

Do not attempt to remedy malfunctions on your own!

Work on live equipment or parts may only be carried out by trained specialist personnel!



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

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

Warn employees! Inform the responsible person of the area!

Fight fire with CO2 fire extinguisher! Pay attention to self-protection!

## Behavior in case of accidents, first aid



Emergency service: 112

Ersthelfer: Johanna Scholz Telefon: -63078; Frau Achazi -57936,

Elisa Quaas -57942 ☐

Switch off machine! Attend to injured person! Inform the person responsible for the area!

## Maintenance, care and disposal

Inspection and maintenance work may only be carried out by suitable persons!

The maintenance documents of the manufacturer must be observed! The GUV R 500 and the test for centrifuges (BGG 934) must be observed! All work must be documented!

Waste disposal via department III 4/41!

Date: 06.04.2023

Signature of the person responsible for the area:

Preparation and processing of documentation by Britt Schaffranietz

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