

Operating Instructions – Working with Flow cytometer Attune NxT (ThermoFisher)

According to Occupational Health and Safety Regulation

Work space: SupraFAB

Work station: Room 114.4

Laser Safety Officer: Dr. Bianca Höfer and Dr. Patryk Kusch

Hazards for people and the environment



Class 1, as enclosed: Any opening, modification or manipulation of the operation is prohibited, to be carried out only by service, as lasers of higher levels are included, as follows:

Class 3B: The accessible visible and invisible laser radiation is dangerous to the eye and, in skin in special cases.



Risk of fire and explosion when handling flammable substances!



Severe electrical shock can result from operating the Attune™ NxT Acoustic Focusing Cytometer without its instrument panels in place. Do not remove instrument panels.

High-voltage contacts are exposed when instrument panels are removed from the instrument.



Danger from spilling hazardous substances (including biological ones), risk from the substances used in accordance with the Hazardous Substances Ordinance.



Protective measures and rules of behaviour



Enclosure of the laser in normal operation implemented by the company.

As housed 3B lasers: Any opening of the housing is prohibited with the laser running!

Only instructed persons may work on the device!

- **Do not remove the instrument top or front panels.**
- Do not place any objects on the cytometer at any time.
- **Do not operate the laser when it cannot be cooled by its cooling fan.**

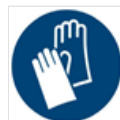
Never operate equipment with the grounding conductor disconnected.

Potential biohazard: take particular care in the vicinity of the suction needle and the waste container.

To minimize the hazards of chemical waste:



- Read and understand the Safety Data Sheets (SDSs) provided by the manufacturers of the chemicals in the waste container before you store, handle or dispose of chemical waste (see "Obtaining SDSs").



- Provide primary and secondary waste containers. (A primary waste container holds the immediate waste. A secondary container contains spills or leaks from the primary container.




- Minimize contact with chemicals. Wear appropriate personal protective equipment when handling chemicals (for example, safety glasses, gloves, or protective clothing). For additional safety guidelines, consult the SDS.

- Minimize the inhalation of chemicals. Do not leave chemical containers open. Use only with adequate ventilation (for example, fume hood). For additional safety guidelines, consult the SDS.

- After emptying the waste container, seal it with the cap provided.

Behaviour in case of danger

Operating Instructions Flow cytometer	Building: SupraFAB	
	Area of application: Freie Universität Berlin Altensteinstr. 23a	



Inform your supervisor and the Flow cytometer representative.
In case of fire call **112** or **55112**.
Fight fire with CO₂ fire extinguisher!

First aid



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-Inspection

Empty the liquid waste container in the device regularly and dispose it into a glass flask. The device gives no indication that the waste is too full.

Waste needs to be autoclaved and then disposed into chemical containers for halogenic waste.

Cells waste in vials needs to be disposed in special waist bins for cell waste.

Repairs may only be carried out by authorised, qualified persons. Regular inspections may only be carried out by authorised persons.

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

Date and signature of division manager: