

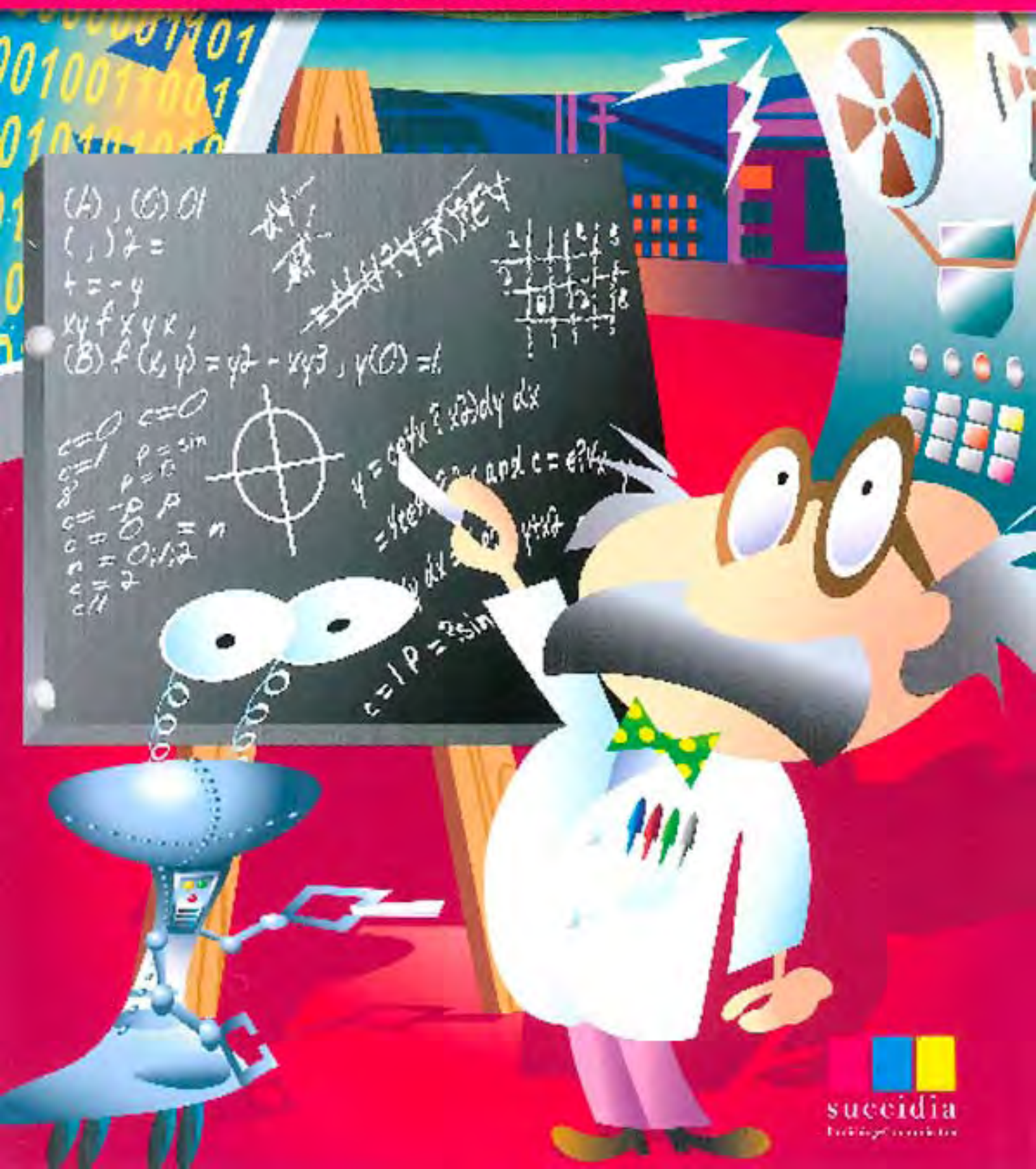
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Quality by
German Scientists

From Scientists to Scientists in 65 Countries

1.10



servicing safety cabinets

Service Checklist

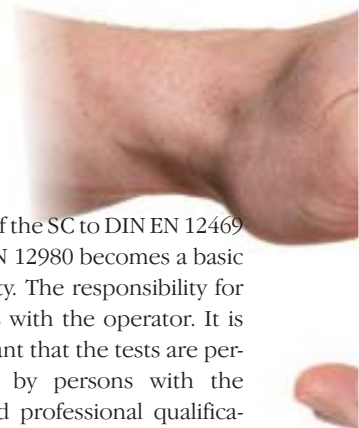


As important as the car inspection test

Safety cabinets (SC) are in many biotechnological and pharmaceutical laboratories one of the most important safety devices. However, due to financial reasons the regular maintenance required by law is often not taken too seriously. As a result the safety of the employee and the environment moves into second place and is assigned an extremely questionable priority.

When handling dangerous biological agents or hazardous substances it is vital to protect the user and the environment using SC. Aseptic and particle-free production and experimental conditions are also of great significance. To permanently safeguard the user as well as the product, regular testing and servicing

of the SC to DIN EN 12469 and DIN 12980 becomes a basic necessity. The responsibility for this lies with the operator. It is important that the tests are performed by persons with the required professional qualifications. The personal certification by the TUV in Germany has proved its worth, the four-day



Your service checklist for safety cabinets



1. Filter



- HEPA and ULPA filter
- Seal seat and leak tightness
- VDI 2083 Part 3 and DIN EN ISO 14644-3
- Very important barrier for human and product



4. Visualisation



- Laminar downflow
- Air inflow
- Low turbulence & without backflow
- Direction



2. Filter replacement



- In case of leakage and full loading
- Preliminary risk assessment
- Optional HPV decontamination
- Negative pressure method for contamination with cytostatics, TSE agents, etc.



5. Monitoring system



- Limiting values laminar downflow
- Limiting value air inflow
- Position of front window
- Optical & acoustic warning signal



3. Air flow



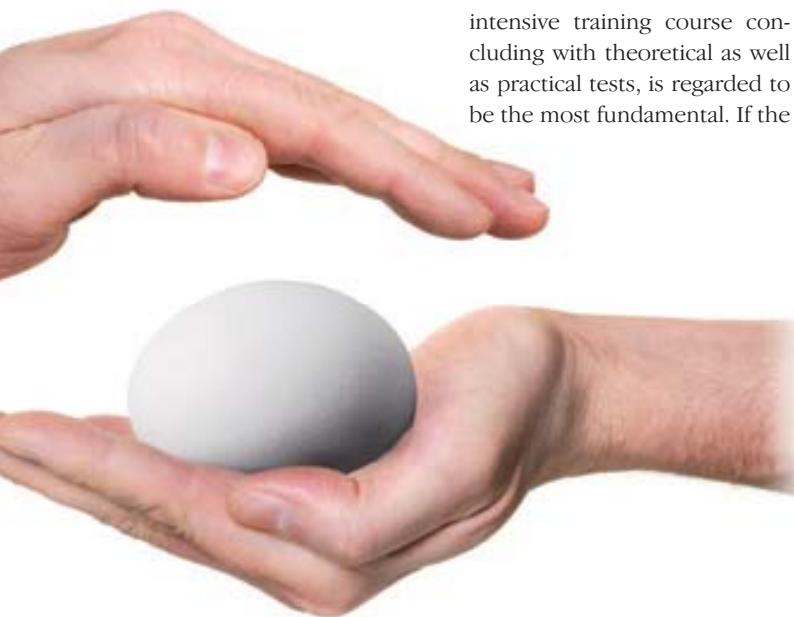
- Testing & adjustment
- Low turbulence laminar downflow
- Air inflow
- Essential for personal, product and cross-contamination protection



6. Personal protection



- KI Discus test
- Functional unit SC & laboratory
- 5 to 15 test cycles
- SC specific operation point



intensive training course concluding with theoretical as well as practical tests, is regarded to be the most fundamental. If the

SC is located within a cleanroom, e.g. as part of medical drug production, then further tests are needed. Inspected and certified process simplify audits by regulating bodies and accelerate the granting of a drug manufacturing licence in accordance with pharmaceutical law.

New Trend

The decontamination of biological agents in safety cabinets using hydrogen peroxide vapour (HPV) is **the** alternative to the

standard formaldehyde method. A series of tests in research laboratories have shown that the HPV method is considerably more effective and faster than formaldehyde. This saves an enormous amount of time, enabling laboratories to be utilised again sooner, thereby lowering costs. Furthermore, for HPV any health and safety problems are significantly reduced. Taking the time to scrutinize this alternative is well worth the effort.

Your reliable business partner for the testing and servicing of safety cabinets in selected countries by TUV-certified professional staff is BERNER International.

www.berner-international.eu | service@berner-international.de



7. Electrical installation ☐

- Protective earth conductor resistance
- Insulating resistance
- Leakage current
- DIN VDE 0701-0702



10. Temperature and relative humidity ☐

- Product and experimental conditions
- Temperature
- Relative humidity



8. Lighting and UV-C light ☐

- Nominal lighting intensity
- Performance of UV-C light
- Safe operation of UV-C light



11. Cleanroom ☐

- Airborne particulate cleanliness class
- Microbiological control of surfaces & air
- Evidence of laminarity LAF
- Qualification EC GMP Guidelines Appendix 15



9. Sound pressure level ☐

- Sound pressure level
- SC specific operation point



Latest trend

12. HPV Decontamination ☐

- Validated method
- Far superior to formaldehyde
- Fast, effective, safe and residue-free
- Tremendous time and cost savings