

**Specification – technical sheet**  
**of Milkstandards ("Bacteria controlmilk")**  
*for flow cytometry instruments, like BSC-FC, BC,..*

1. **Composition:** Raw milk with definite cultures of bacteria; preserved with *Acidiol* ("Na-Azid")
2. **Samples:** two samples with different IBC - levels
 

Milkstandard A	: ~ 150 – 200 impulses/ml
Milkstandard B	: ~ 300 – 450 impulses/ml
3. **Application - Delivery:**
  - a) every 4 weeks – 24 countries, 70 laboratories, 120 instruments
    - ☒ Control-/calibration milk for the daily measuring routine
    - ☒ interlaboratory studies – detailed statistics every 4 weeks
4. **Accuracy, precision**

<input checked="" type="checkbox"/> $\sigma_k(\%) \cdot r$ : Standard deviation of repeatability /arithm. mean * 100	: 2,5-4,5 %
<input checked="" type="checkbox"/> $\sigma_k(\%) \cdot R$ : Standard deviation of reproducibility /arithm. mean * 100	: 3,5-5,5%
<input checked="" type="checkbox"/> <b>uncertainty of measurement</b> (reproducibility $\log s_R \times 2,0$ )	: 0,04-0,06 log
5. **Correctness – Calculation of a standard value**

The nominal value is determined on the basis of the reference method (cultural colony count method). Because of the known germ flora (special lactic acid bacteria) of the Milkstandard the determination of the viable count is possible within an accuracy of  $\pm 5\%$ . *The Microbiology – the cultural methods are accredited according DIN EN ISO 17025:2005.* Further, 10 BactoScan appliances at least, where the milk standard is delivered to in advance, are checked with regard to their technical function. The reference value has a precision of  $\pm 10\%$  (for each sample the uncertainty will be calculated). However the measuring results show that the variance is significantly lower for this kind bacterial controlsamples.
6. **Storage - Stability**

In the refrigerator – at 6-8°C – you shouldn't store the Milkstandards for a longer time than 7 days (incl. delivery time). Deep frozen – at -15°C to – 30°C – the Standards (after filling up in little portions) will have a good stability for at least of 6 month by about 3% decrease of the measuring values. It would be of advantage if the filled (40ml) bottles are precooled (2-4°C) in front of freezing.
7. **Handling – Examination (see Handling instructions)**

After thawing up (over night or short in warm water) of the frozen portions. Cold measuring is possible. But it would be of advantage if the Milkstandards are warmed up on a temperature of 15-20°C.!!
8. **Specification – message of the standard resp. reference values**

The specifications, the reference values you get in the delivery week via Mail and Fax.
9. **Statistics:** Every 4 weeks the laboratories get a detailed statistic resp. evaluation of the results you send in comparison with the results of other laboratories (in 24 countries). In this way it would be of advantage if you send us the results as soon as possible. You get a special CODE for your instruments.

Wangen/Hergatz im Allgäu, Jan. 2012

