

## TECHNICAL DATA SHEET 735

Page 1 of 2

# ViaCheck™ Concentration Control (4 x 10<sup>6</sup>)

## Description

ViaCheck Concentration Control particles are a suspension of ~10µm undyed microspheres that are produced at a fixed concentration of particles/milliliter. ViaCheck Concentration Controls are instrument standards for calibration and instrument monitoring of cell concentration (particles/ml) using Cell Viability Analyzers.

## Characteristics

Bead Concentration: 4 x 10<sup>6</sup> particles/ml (3.6 x 10<sup>6</sup> - 4.4 x 10<sup>6</sup> particles/ml)  
Particle Size: 9-12µm

## Material

### Material Supplied

- 20ml of ~10µm undyed microspheres in a solution of buffered salts and surfactant containing 0.08% sodium azide

### Material Required

- Cell Viability Analyzer or Particle Counter ex. Coulter ViCell XR Cell Viability Analyzer or Coulter Counter
- Precision pipets with disposable tips to deliver 20-200µl, 200-1000µl
- Isotonic Buffered Saline Diluent (optional)

## Procedure

For the best accuracy be sure to work carefully and quickly when sampling and pipetting ViaCheck particles. Allowing the particles to stand for even a short period of time could lead to inaccurate data and results.

1. Vortex and mix (inversion or tube rotator) the vial of particles to ensure a well mixed suspension.
2. Place a minimum of 0.5 - 1.0ml of the particles into an analyzer sample cup.
3. Place the sample cup in the analyzer sampling station.
4. Using the ViCell XR analyzer menu, set up and save a "CELL TYPE" for Viability controls at the settings below. *Note:* These settings are guidelines to allow the user to analyze the ViaCheck Viability Control Particles and may have to be adjusted for each instrument.

<u>Cell Type</u>	<u>Viability Control</u>
Minimum Cell Diameter	2 (µm)
Maximum Cell Diameter	50 (µm)
Minimum Circularity	0.9
Dilution Factor	1.0
Cell Brightness	70%
Cell Sharpness	75%
Viable Cell Spot Brightness	55%
Viable Cell Spot Area	1.0%
Decluster Degree	Low
Aspirate Cycles	2
Trypan Blue Mixes	3

5. Analyze the sample according to the analyzer's instruction.

***ViCell XR data of ViaCheck Concentration Control (4 x 10<sup>6</sup>)***

**RESULTS**

Cell Count	4067
Viable Cell Count	1.0
Viability (%)	0.0
Total Cells / ml (x 1.0E6)	4.17
Viable Cells / ml (x 1.0E6)	0.001
Average Diameter (µm)	8.99
Average Circularity	0.95
Images	50
Averages Cells / Image	81.3
Average Background Intensity	204

## Storage and Stability

Store at 4-30°C. Freezing particles may result in irreversible aggregation and loss of binding activity.

## Safety

This particle suspension contains sodium azide. Sodium azide may react with lead and copper plumbing to form explosive metal azides. Upon disposal of material, flush with a large volume of water to prevent azide accumulation. Please consult the Material Safety Data Sheet for more information.

**This product is for research use only and is not intended for use in humans or for *in vitro* diagnostic use.**

## Ordering Information

Cat. #	Description	Size
24628	ViaCheck™ Concentration Control (4 x 10 <sup>6</sup> )	20ml

## Related Products

Catalog Code	Description	Size
24622	ViaCheck™ 0% Viability Control	20ml
24623	ViaCheck™ 50% Viability Control	20ml
24624	ViaCheck™ 75% Viability Control	20ml
24625	ViaCheck™ 90% Viability Control	20ml
24626	ViaCheck™ 100% Viability Control	20ml
24627	ViaCheck™ Concentration Control (1 x 10 <sup>6</sup> )	20ml
24629	ViaCheck™ Concentration Control (8 x 10 <sup>6</sup> )	20ml

### To Order

In The U.S. Call: 1-800-523-2575 • 215-343-6484  
In The U.S. FAX: 1-800-343-3291 • 215-343-0214

In Germany Call: (49) 6221-765767  
In Germany FAX: (49) 6221-764620

Order online anytime at [www.polysciences.com](http://www.polysciences.com).