

# Thermo Scientific Count Controls: Pharm-trol, Count-Cal, Validex, Ezy-Cal

Maximize instrument repeatability, reproducibility and accuracy performance

- Diameters are traceable to the standard meter through the National Institute of Standards and Technology (NIST), providing a simple, convenient method for calibrating particle counting instruments
- Supplied as a low residue aqueous suspension that allows for minimal background interference and precise insight into the dynamic range and calibration of the instrument
- Precisely diluted for immediate use in laser particle counters, minimizing any need for time-consuming adjustments of the concentration



Count control concentrations are provided with a  $\pm$  tolerance to provide confidence in the results



Thermo Scientific Count Controls validate the results of laser particle counters regardless of brand to ensure they are accurately measuring for particulate matter in air, surface or liquid applications where contamination is a concern and requires diligent monitoring.

## Pharm-trol

Pharm-Trol has a 15  $\mu\text{m}$  nominal diameter and is packaged in concentrations of 3800 particles/mL  $\pm$  15%. Used by manufacturers of parenteral drugs and ophthalmic solutions who are seeking interim verification of USP <788> and <789> (Particulate Matter in Injections and Particulate Matter in Ophthalmic Solutions).

## Count-Cal

Count-Cal products have a nominal range from 2  $\mu\text{m}$  to 70  $\mu\text{m}$  in concentrations of 3000 particles per mL  $\pm$  10%. Use in similar applications as Pharm-trol.

## Validex

Validex is used for validating the performance of liquid particle counters used for testing drinking water. Each bottle contains a nominal concentration of 1000 particles/mL  $\pm$  10% in ultrapure water

## Ezy-Cal

Ezy-Cal comes in ready-to-use concentrations of 2000 particles/mL  $\pm$  10%. Typical applications include Pharmaceutical, food, beverage, and wastewater.

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## Applications

- Instrument calibration and validation: particles counters using laser scatter, light scatter, light blockage, imaging, microscopy, and electrical resistance
- Instrument QC: check for instrument problems and shifts in laser function, check the calibration curve shape, etc.
- Monitor for particulate matter: for manufacturers

## Specifications

	Pharm-Trol	Count-Cal	Validex	Ezy-Cal
Composition	Polystyrene	Polystyrene	Polystyrene	Polystyrene
Diameter (nominal)	15 µm	2 µm to 70 µm	5 µm and 10 µm	2 µm to 70 µm
Concentration	3800/mL ± 15%	3000/mL ± 10%	1000/mL ± 10%	2000/mL ± 10%
Density	1.05 g/cm <sup>3</sup>	1.05 g/cm <sup>3</sup>	1.05 g/cm <sup>3</sup>	1.05 g/cm <sup>3</sup>
Index of Refraction	1.59@589 nm (25°C)	1.59@589 nm (25°C)	1.59@589 nm (25°C)	1.59@589 nm (25°C)
Fill Volume	25 mL	25 mL	500 mL	100 mL
Additives	Trace amount of surfactant in each product			
Package Includes	Certificate of Calibration and Traceability to NIST, Material Safety Data Sheet (MSDS)			
Storage and Handling	Unless otherwise stated, refrigerate (2-8 °C) product when not in use but do not freeze. Store upright and keep bottle tightly sealed. Mix product with gentle inversion by hand or vortex mixer.			

## Pharm-Trol

Catalog Number	Nominal Diameter	Quantity
CS-PK	15 µm	6 bottles
CS-BX	15 µm	20 bottles

## Count-Cal

Catalog Number	Nominal Diameter	Quantity
CC02-PK	2 µm	6 Bottles
CC05-PK	5 µm	6 Bottles
CC10-PK	10 µm	6 Bottles
CC15-PK	15 µm	6 Bottles
CC20-PK	20 µm	6 Bottles
CC25-PK	25 µm	6 Bottles
CC30-PK	30 µm	6 Bottles
CC50-PK	50 µm	6 Bottles
CC70-PK	70 µm	6 Bottles

## Validex

Catalog Number	Nominal Diameter
CRS-05	5 µm
CRS-10	10 µm

## Pharm-trol and Count-Cal Beads Comply with Global Pharmacopoeia

- United States Pharmacopoeia (USP) <729>, <788>, and <1027>
- China Pharmacopoeia (Ch. P. 2010, Volume III, App. V)
- European Pharmacopoeia (Ph. Eur.) 2.9.19, 2.7.24
- Japan Pharmacopoeia (JP) 6.07 antibodies attached which will bind to the target analyte

## Ezy-Cal

Catalog Number	Nominal Diameter
6002	2 µm
6005	5 µm
6010	10 µm
6015	15 µm
6020	20 µm
6025	25 µm
6030	30 µm
6050	50 µm
6070	70 µm

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