CERTIFICATE OF ANALYSIS

MediLumine Inc.
5795 Av. De Gaspé,
Suite #228
Montreal, QC,
Canada H2S 2X3
Phone: +1 514 929-9744
Fax: +1 514 360-6014
www.medilumine.com

Product:	Vascupaint™ silicone injection compound for ex vivo microscopy and micro-CT imaging. The kit consists of a first part yellow bismuth nanoparticle dispersion in silicone (200 ml), a second part PDMS diluent (200 ml) and third part catalyst (25 ml).
Trade Name(s):	Vascupaint™
Catalog numbers:	MDL-121 (dispersion), MDL-121D (diluent), MDL-121C (catalyst)
Lot Number:	CA0448533
Storage:	Store at room temperature
Shelf Life:	2 Years from date of manufacture

Component 1: Bismuth Nanoparticle Dispersion in Silicone

Appearance:	Yellow
Bismuth concentration:	30% by weight
Viscosity @ 25°C:	90 cPs

Component 2: PDMS Diluent

Appearance:	Clear
Viscosity @ 25 C, cST:	4.8
Refractive Index:	1.3955

Component 3: Catalyst

Appearance:	Clear
Specific Gravity:	0.96
Refractive Index:	1.3900

Preparing Stock Solutions of Silicone and Diluent Mixtures

Pour 20 ml of Vascupaint into 50 ml conical tube. Add 25 ml diluent to the same tube. Gently invert the tube several times until the mixture is homogeneous and store for future use.

Using Previously Prepared Stock Solutions of Silicone and Diluent Mixtures

Some ‘soft settling’ of pigments will occur in the stock solution. You can remove this by gently inverting the bottle several times. The pigments will remain suspended in solutions for several hours after this gentle inversion step.

Mix ratio for perfusion into non-surviving organism

Mix ratios can be slightly adjusted to fit the application of user. One example of a protocol that is used often is to add 9 ml of the stock solution to a 14 ml conical tube or to petri dish for mixing with 5% (0.45 ml) catalyst.

See the Vascupaint protocol and data sheet for more information.

Contrast Enhancement, Viscosity and Gelation Kinetics

Altering rations of the yellow silicone to diluent will help to modify the level of contrast enhancement of Vascupaint. For example, adding 4 ml of yellow silicone to 4 ml of diluent instead of 5 ml of diluent.

Viscosity starts to increase 25 minutes after mixing and hardening occurs 90 minutes after. Add more catalyst, up to 5% of Silicone/Diluent mixture, to achieve desired stiffness level of rubber silicone for tissue clearing applications.