

## SMP-200 and SMP-310R/300 Compatibility test

The parts of the pump (reservoir, catheter tube and connectors) which are exposed to the solution for infusion in an iPRECIO® Micro-infusion pump are made with medical grade SIBS, SEBS and PP. The solution is also in contact with the septum material. Current compatible and incompatible solvents are listed hereafter. Compatibility is based on Primetech's Testing Methods only.

For the most current list of compatible solvents, check [www.iprecio.com](http://www.iprecio.com) or contact your nearest official distributor. **For studies longer than 2 months, contact your nearest official distributor to confirm compatible solvents.**

**Not highlighted and highlighted tested in SMP-200 Pump** **Highlighted in yellow: Tested for SMP-300 and SMP-310R as well.**

(same materials and manufacturing process) and expected to be compatible when compatible. Also, not compatible when not compatible.

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Compatible Solvents  
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Acids, with pH 2 or weaker

Bases, with pH less than 13

Buffered Phosphate Saline (PBS)

Culture Media (1% benzyl alcohol)

Cyclodextrin

Dextrose, up to 5% in water or saline

N,N-Dimethyl formamide (DMF), up to 25% in water

DMSO 50% and water or saline 50%

DMSO, up to 50% in ethanol ( $\leq 15\%$ ) and water

DMSO 5% and PEG400 95%

50% DMSO + 50% Propylene Glycol

DMSO 50% and water 50%

DMSO 50% + 15% ethanol and 35% water

Dulbecco's Modified Eagle Medium (D-MEM) (1X), liquid

Ethanol, up to 50% in water

Glycerin, up to 75% in water

Glycerol 100%

1-Methyl-2-Pyrrolidone, up to 12.5% in water

Propylene Glycol

Ringer's solution (without lactate)

Saline, 0.9% (or other aqueous salt solution)

Triacetin, up to 5% in water

Tween 80, up to 2% in water

Water, distilled

PEG200 100%

Solutol® 15% in water  
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Viscosity up to 20 cp is ok. (Higher viscosity not tested due to the use of 27G needles. Difficulty to aspirate solution with 27G needle)

Viscosity up to 57 cp has been tested by iPRECIO Users using cyclodextrin compounds like Hydroxypropyl Betacyclodextrine.

**Not highlighted and highlighted tested in SMP-200 Pump** Highlighted in yellow:  
Tested for SMP-300 and SMP-310R as well.

(same materials and manufacturing process) and expected to be compatible when compatible. Also, not compatible when not compatible.

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Short term use only (1 - 2month)  
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PEG300 100% (< 45 days)

PEG400 100%

Cremonophor EL 25% in water (< 30 days)

PEG400/Propylene Glycol/Water 30:50:20 (< 30 days)

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In-compatible Solvents  
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Acids, with pH less than 1.8

Bases, with pH higher than 14

Benzyl-alcohol >10% vol

Corn Oil

DMSO (100%)

DMSO 50% + ethanol 50%

DMSO 50% and PEG400 50%

DMSO 50% and PEG300 50%

DMSO 50% and PEG200 50%

Ethyl Oleate

Mineral Oil

Sesame Oil

Solutol® 30% in water

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In-compatible Drugs/Molecules  
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Rotenone (CAS 83-79-4)  $\geq 3\mu\text{g/ml}$

Primetech Corporation recommends that a compatibility test be performed before using a pump to ensure the drug and solvent solutions are compatible with the materials used. Strong acids, strong alkalis and organic solvents may cause decomposition or denaturation of the materials comprising the pump. Drug compounds may also be absorbed by the materials.

Primetech is able supply the complete sub-assembly composing of SIBS reservoir, PP refill port with septum, PP connectors and SEBS catheter for evaluation of compatibility. For compatibility testing, add the solution in question into the reservoir and catheter sub-assembly (warmed to body temperature), in a controlled environment. Incubate for a period of time exceeding the expected study duration. After incubation, analyze the solution according to known analysis procedures.

A test kit containing the different materials used is also available for evaluation.