

# SMP-300 Compatibility test

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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.

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.**

Last Updated December 3, 2015

Highlighted in yellow: Tested

Not highlighted: SMP-200 Pump (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 (≤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)

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

**PEG400 100%**

**Cremophor 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) ≥ 3µg/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.