

Care Chemicals

Soluplus[®]: The Solid Solution

Pharma Ingredients & Services

 **BASF**
The Chemical Company

Solubility and Bioavailability Problems?

Do you have problems with the solubility of your APIs?

- About 40% of the APIs currently on the market show poor solubility
- About 90% of the APIs in development are poorly soluble
- Numerous APIs do not even enter clinical development due to extremely low solubility in water
- In many cases, the formulation carries a high dosage of the drug, leading to:
 - **No reliable efficacy**
 - **Stability problems**
 - **Costs increase**

New and effective methods are required to solve the solubility problems

Soluplus® - The Solid Solution

What is the product for?

Try Soluplus and experience:

A new dimension in solubility and bioavailability enhancement

- Soluplus is a solubilizer specially designed for solid solutions

Solid Solutions

- A solid solution is comparable with a liquid solution, whereas the matrix is not a liquid but a polymer that keeps the drug molecularly dissolved.
- The approach of solid solutions at the Pharma Industry was introduced to overcome problems of poorly soluble APIs.



Soluplus[®] - The Solid Solution

Methods of preparation

Hot melt extrusion

method of choice

Hot melt extrusion (HME) is more recommendable because the utilization of organic solvents is not necessary.



Soluplus extrudate

Solvent evaporation

- We do recommend *(due to the immediate evaporation of solvents)*
 - Preparation of thin films
 - Spray drying of organic solvents (if low bulk density is acceptable)
- We do not recommend *(due to the slow evaporation of solvents the active might crystallize as soon as solubility in organic solvent gets undercut)*
 - Rotating evaporator
 - Microtiter plates

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Benefit from the advantages of Soluplus

- With its [outstanding solubilization](#) properties, Soluplus is designed to specifically dissolve poorly soluble APIs.
- Due to the [high flowability](#) and [excellent extrudability](#), Soluplus shows superior performance in forming solid solutions, specially in hot melt extrusion processes.
- The [safety](#) of the new polymer is documented by [comprehensive studies](#).

Soluplus (granules)



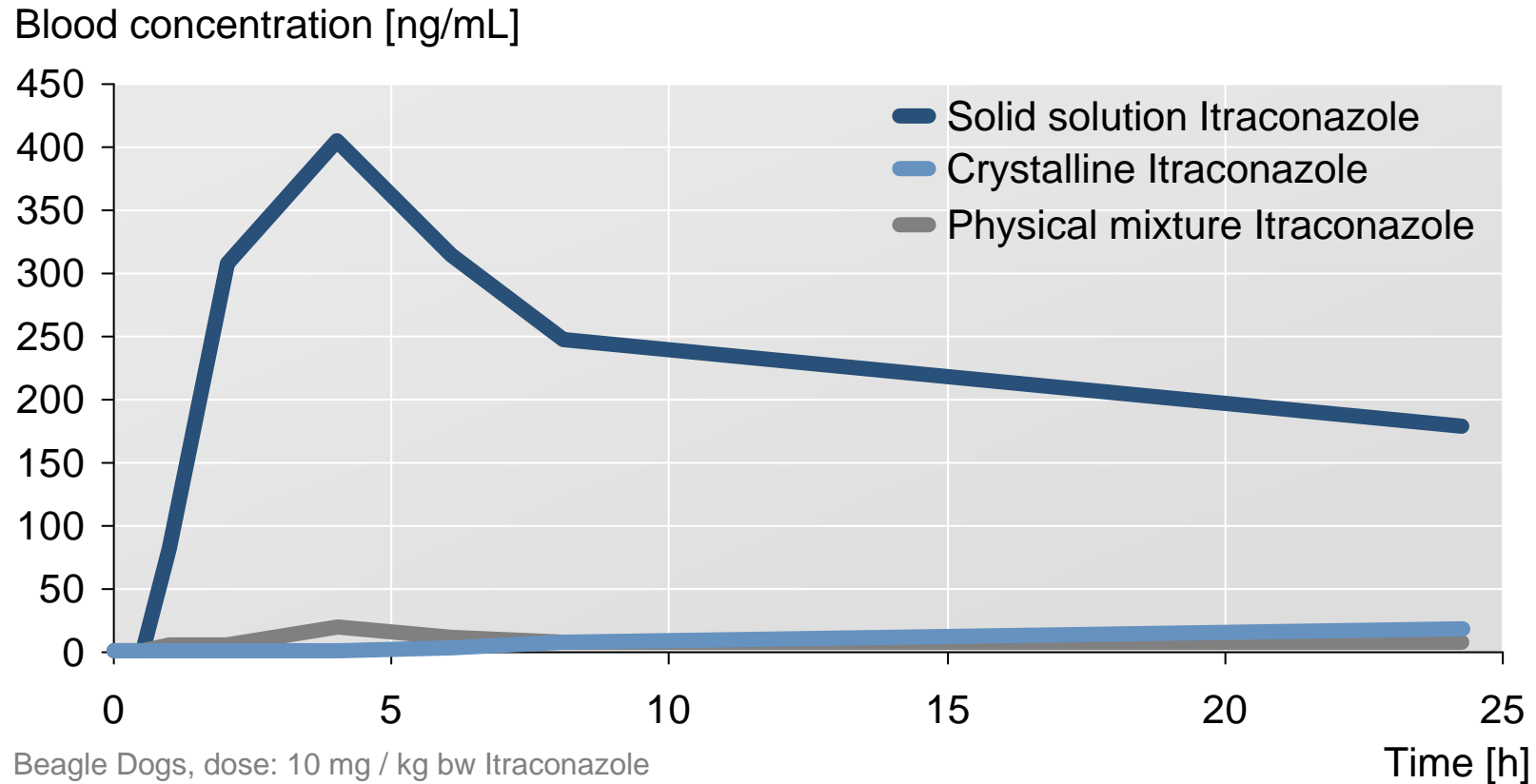
Hot melt extrusion



Soluplus (milled extrudate)

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Example of Bioavailability increase: Itraconazole



R&D studies show outstanding solubilization and bioavailability enhancement!

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Soluplus®

Distribution



- Standard package of 25kg



- Samples of 0.5kg
- Samples of 2.5 kg

**Talk to us about your
solubilization issues!**



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