

Compatible Vehicle Combinations for Poorly Soluble Compounds

ALZET Osmotic Pumps have proven to be an invaluable tool for delivering test solutions in pre-clinical studies. However, some investigational compounds are poorly soluble and/or are prone to crystallization, which can cause stress to the animal and result in poor pharmacokinetics. Below are select vehicle combinations that are known to be compatible with ALZET pumps and have successfully improved the solubility of poorly soluble test solutions in pre-clinical studies:

Vehicle(s)	Concentration (%)	Example Research Application
DMSO:PEG	50:50	Isoflavonoids
2-hydroxypropyl- β -Cyclodextrin	45	Hydrophobic compounds
Glycofurol:PEG 300:Cremophor ELP: Ethanol: Propylene Glycol	25:25:25:15:10	Enzyme inhibitors

The vehicle combinations listed above are compatible with ALZET pumps when used as is. Slight modifications can be considered but should be tested for pump compatibility using the ALZAID Chemical Compatibility Test Kit. ALZAID enables researchers to assess agent and solvent compatibility with ALZET pumps. To learn more about this kit, please visit the following link:

<http://www.alzet.com/products/alzaid.html>

To view a comprehensive list of commonly used solvents, known to be compatible with ALZET pumps, please visit the following link:

http://www.alzet.com/products/guide_to_use/formulating.html#solvents