

Solid dispersions

Functionality	Product	Description	Process				Monograph title*/Chemical name
			Physical mixing	Melt granulation	Spray drying	HME**	
Solubility enhancement	Soluplus®	Polymer designed for amorphous solid dispersions (ASDs), specifically to increase solubility and bioavailability of poorly water soluble drugs. Ideal for hot melt extrusion and spray drying.	■	■	■	■	Polyvinyl caprolactam – polyvinyl acetate – polyethylene glycol graft copolymer
	Kolliphor® RH 40	Nonionic solubilizer.	■	■	■	■	Ph.Eur.: Macrogolglycerol hydroxystearate; USP/NF: Polyoxyl 40 hydrogenated castor oil
	Kolliphor® HS 15	Nonionic solubilizer.	■	■	■	■	Ph.Eur.: Macrogol 15 hydroxystearate; USP/NF: Polyoxyl 15 hydroxystearate
	Kolliphor® EL	Nonionic solubilizer.	■	■	■	■	Ph.Eur.: Macrogolglycerol ricinoleate; USP/NF: Polyoxyl 35 castor oil; JPE: Polyoxyl 35 castor oil
	Kolliphor® ELP	Purified Kolliphor® EL, especially for sensitive active ingredients.	■	■	■	■	Ph.Eur.: Macrogolglycerol ricinoleate 35; USP/NF: Polyoxyl 35 castor oil
	Kolliphor® SLS 	Ionic solubilizer and emulsifier.	■	■	■	■	Ph.Eur.: Sodium laurilsulfate; USP/NF, JP: Sodium lauryl sulfate
	Kolliphor® P 188 Geismar	Polymeric solubilizer, emulsifier and plasticizer.	■	■	■	■	Ph.Eur., USP/NF: Poloxamer 188; JPE: Polyoxyethylene (160) polyoxypropylene (30) glycol
	Kolliphor® P 338 Geismar	Polymeric solubilizer, emulsifier and plasticizer.	■	■	■	■	Ph.Eur., USP/NF: Poloxamer 338
	Kolliphor® P 407 Geismar	Polymeric solubilizer, emulsifier and plasticizer.	■	■	■	■	Ph.Eur., USP/NF: Poloxamer 407; JPE: Polyoxyethylene (196) polyoxypropylene (67) glycol
	Kolliphor® PS 20 	Nonionic solubilizer, emulsifier and co-emulsifier.	■	■	■	■	Ph.Eur., USP/NF: Polysorbate 20
	Kolliphor® PS 60 	Nonionic solubilizer, emulsifier and co-emulsifier.	■	■	■	■	Ph.Eur., USP/NF, JPE: Polysorbate 60
	Kolliphor® PS 80 	Nonionic solubilizer, emulsifier and co-emulsifier.	■	■	■	■	Ph.Eur., USP/NF: Polysorbate 80
	Kollidon® 12 PF Kollidon® 17 PF	P P Endotoxin controlled – low molecular weight povidone for solubilization, stabilization and crystallization inhibition.	■	■	■	■	Ph.Eur., USP/NF, JP: Povidone
	Kollidon® 25 Kollidon® 30 ^Δ	P P Medium-molecular weight Povidone for solubilization, dispersion and oral liquid and oral semi-solid formulations crystallization inhibition.	■	■	■	■	Ph.Eur., USP/NF, JP: Povidone
	Kollidon® 90 F	P High-molecular weight Povidone for solubilization, dispersion and crystallization inhibition.	■	■	■	■	Ph.Eur., USP/NF, JP: Povidone



Functionality	Product	Technology				Description	Monograph title*/Chemical name	
		Physical mixing	Melt granulation	Spray drying	HME**			
Matrices	Soluplus®	■	■	■	■	Polymer designed for amorphous solid dispersions (ASDs), specifically to increase solubility and bioavailability of poorly water soluble drugs. Ideal for hot melt extrusion and spray drying.	Polyvinyl caprolactam – polyvinyl acetate – polyethylene glycol graft copolymer	
	Kollidon® VA 64		■	■	■	Copolymer designed for creation of amorphous solid dispersions (ASDs) – instant release matrix, solubilizer, crystallization inhibitor. High solubility in organic solvents, high acceptability in solid oral doses. Ideal and commonly used in HME and spray drying.	Ph.Eur., USP/NF: Copovidone; JPE: Copolyvidone	
	Kollidon® SR		■	■	■	Controlled release matrix. May be blended with water soluble polymers to tailor release.	80% Polyvinyl acetate and 19% povidone, 0.8% lauryl sulfate & 0.2% silica	
	Kollidon® 12 PF Kollidon® 17 PF	P P		■	■	■	Endotoxin controlled – low molecular weight povidone for solubilization, stabilization and crystallization inhibition.	Ph.Eur., USP/NF, JP: Povidone
	Kollidon® 25	P		■	■	■	For instant release matrices including solubilization and crystallization inhibition.	Ph.Eur., USP/NF, JP: Povidone
	Kollidon® 30 ^Δ	P			■		For instant release matrices including solubilization and crystallization inhibition. Suitable for spray drying.	Ph.Eur., USP/NF, JP: Povidone