

**Table 8.1 Some drugs formulated in chloride-based formulations and filled into staked needle syringes**

Drug	Manufacturer	pH	(NaCl)	Other	Needle	Volume	Storage (°C)
Fragmin (LMW heparin)	Pharmacia & Upjohn	5–7.5	“Isotonic” (~130 mM)	8 or 16% drug (MW 5000)	27 gauge × 0.5”	0.2 mL	20–25
Infergen (Interferon- $\alpha$ )	Amgen	7.0	100 mM	Sodium phosphate 25 mM	26 gauge × 5/8”	0.5	2–8
Kineret (IL-1Ra)	Amgen	6.5	140 mM	Sodium citrate 0.19%, 0.018% EDTA	27 gauge	0.67	2–8
Orgaran (antithrombotic)	Organon	7	“Isotonic” (~130 mM)	Sodium sulfite 0.15%; drug MW 5500	25 gauge × 5/8”	0.6	2–8
Vaqtia (Hep. A vaccine)	Merck		150 mM	Alum; sodium borate 0.007%	1”	1.0	2–8

From David Overcashier, Genentech (private communication, 2002).