TOMPKINS COUNTY HEALTH DEPARTMENT
Your Partner for a Healthy Community
Environmental Health Division
55 Brown Road, Ithaca, NY 14850
(607) 274-6688; Fax (607) 274-6695

Chemical Sanitizing

	Chlorine Bleach	Iodine	Quaternary Ammonium (Quats)
Minimum concentration ---*for immersion*	50 ppm✦	12.5 ppm	200 ppm
----*for spray, wiping cloths or cleaning in place*	100 ppm△	25 ppm	400 ppm
Temperature of solution	75 ^{0}F – 115 ^{0}F	75 ^{0}F – 120 ^{0}F	Above 75 ^{0}F
Time for sanitizing ---*for immersion*	1 minute	1 minute	1 minute, however some products require longer contact time; read label
---*for spray, wiping cloths or cleaning in place*	follow manufacturers instructions	follow manufacturers instructions	
pH (detergent residue raises pH of solution so rinse thoroughly first)	Must be below pH 8	Must be below pH 5.0	Most effective around pH 7 but varies with compound
Corrosiveness	Corrosive to some surfaces such as metals	Noncorrosive	Noncorrosive
Response to organic contamination in water	Quickly inactivated	Made less effective	Not easily affected
Response to hard water	Not Affected	Not Affected	Some compounds inactivated - read label. Hardness over 500 ppm is undesirable for some quats
Indication of strength of solution	Test kit required	Amber color indicates presence. Use test kit to determine concentration	Test kit required. Follow label instructions closely

✦ 1/2 tsp. of 5.25% sodium hypochlorite (chlorine bleach) in 1 gallon water = 50 ppm
△ 1 tsp. of 5.25% sodium hypochlorite (chlorine bleach) in 1 gallon water = 100 ppm
✦ 1/4 tsp. of 6.0% sodium hypochlorite (chlorine bleach) in 1 gallon water = 50 ppm
△ 1/2 tsp. of 6.0% sodium hypochlorite (chlorine bleach) in 1 gallon water = 100 ppm

1/2oz (2 tsp. or 1capful) of 5.25% sodium hypochlorite (chlorine bleach) in 1 gallon water = 200 ppm
1 tsp. of 6.0% sodium hypochlorite chlorine bleach) in 1 gallon water = 200 ppm

ppm = parts per million