

Disinfection Options: Overview

Disinfectant	Maintain Residual?	Disinfection Capacity	By-product Formation
Chloramine	Yes	Low Medium	Nitrate
Chlorine Dioxide	Yes	Medium to high	Chlorite
Ozone	No	High	Aldehyde / Bromate
UV	No	High	??

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Disinfectant	Maintain Residual?	Disinfection Capacity	By-product Formation
Chloramine Chlorine Chlorine Dioxide	Yes Yes Yes	 CIO₂ and Cl₂ primary & set Secondary d ozone/UV 	can provide condary isinfection with
Ozone	No	No No	
UV	No		







Key "Treatment" Approaches for Distribution Systems

- Secondary Disinfection
 - Process of maintaining a disinfectant residual for pathogen control in the distribution system
- Corrosion control
 - Process reducing the formation of "red water" during distribution

Objectives of Secondary Disinfection

- Reduce the likelihood of pathogenic regrowth in distribution systems
- Protect distribution systems from contamination from external sources
- Provide a means for "rapid" detection to complement microbial monitoring

Inferred Relationship of Disinfectant Residual on Regrowth



