

## COMPARISON OF TECHNOLOGIES

Requirement	Effectiveness of the technology						
	Chlorination <sup>1</sup>	Chlorine +UV	Hydrogen peroxide <sup>2</sup>	Ionizer <sup>3</sup> (+chlorine)	Ozone +chlorine	LifeOX <sup>®</sup> (+chlorine)	Ozone <sup>6</sup>
Bacteria removal	good	excellent	low	good	excellent	excellent	excellent
Destruction of resistant pathogens	ineffective	poor	poor	ineffective	excellent	excellent	excellent
Oxidation power	low	low	low	noone	very good	excellent	very good
Removal of inorganic pollutants	none	none	none	none	good	good	good
Discoloration, deodorization	none	poor	none	none	very good	excellent	excellent
Turbidity reduction	none	poor	none	none	good	excellent	excellent
COD reduction	none	poor	none	none	good	very good	very good
TOC reduction	none	poor	none	none	poor	significant	less than at LifeOX
Destruction of urine components	none	poor	none	none	good	excellent	very good
Chloramines removal	none <sup>8</sup>	poor	chloramines not present	none	good	very good	chloramines not present
By-products formation	yes, substantially	yes	no	indirectly <sup>4</sup>	minimal	no <sup>5</sup>	no <sup>7</sup>

**1** – Incl. of chlorine electrolytic generation (salt water pools); **2** – At usual hydrogen peroxide concentrations in the pool; **3** – Electrolytic generation of copper and silver cations combined with chlorine dosing; **4** – By-products formed at additional chlorination; **5** – No or minimal by-products formation at chlorination; **6** – Ozone water treatment without chlorination; **7** – Oxidative intermediates as carboxylic acids can be formed; **8** – At normal chlorine concentrations. COD – Chemical Oxygen Demand; TOC – Total Organic Carbon content.