

## Comparison of the Efficacy of Hydrogen Peroxide vs. Peracetic Acid

### Lethality of Hydrogen Peroxide (pH 6-7)\*

<b>Organism</b>	<b>Conc. (ppm)</b>	<b>Lethality (min)</b>	<b>Temp</b>	<b>Factor<sup>2</sup></b>
<i>Staphylococcus aureus</i>	1,000	60	24°C	60,000
<i>Staphylococcus aureus</i>	258,000	12 sec	24°C	1.28MM
<i>Escherichia coli</i>	1,000	60	24°C	60,000
<i>Escherichia coli</i>	500	30	24°C	15,000
<i>Streptococcus lactis</i>	500	150	37°C	75,000
<i>Streptococcus faecalis</i>	1,000	15	54°C	15,000
<i>Micrococcus spp.</i>	30	10	24°C	300
<i>Lactobacillus vulgaricus</i>	300	240	20°C	72,000
<i>Clostridium botulinum</i>	1,000	15	54°C	15,000

\*From: Seymour S. Block; *Disinfection, Sterilization and Preservation*; 4<sup>th</sup> Edition

### Lethality of Peracetic Acid (pH 6-7)\*\*

<b>Organism</b>	<b>Conc. (ppm)</b>	<b>Lethality (min)</b>	<b>Temp</b>	<b>Factor<sup>2</sup></b>
<i>Staphylococcus aureus</i>	80	30 sec	20°C	160
<i>Escherichia coli</i>	80	30 sec	20°C	160
<i>Listeria monocytogenes</i>	80	30 sec	20°C	160
<i>Vibrio cholerae</i>	80	30 sec	20°C	160
<i>Klebsiella pneumoniae</i>	80	30 sec	20°C	160
<i>Lactobacillus spp.</i>	80	30 sec	20°C	160

\*\*GLP Study; Gibraltar Laboratories; 2013, 2015

Lethality: Complete kill of an organism in the specified time period and temperature.

<sup>2</sup>Efficacy Factor: Concentration x time (minutes)