

Comparison of the Efficacy of Hydrogen Peroxide vs. Peracetic Acid

From: Seymour S. Block; *Disinfection, Sterilization and Preservation*; 4th Edition

Lethality of Hydrogen Peroxide (pH 6-7)

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

Lethality of Peracetic Acid (pH 6-7)*

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

*GLP Study; Gibraltar Laboratories; 2013, 2015