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|  |  | **4-501.114 Manual and Mechanical Warewashing Equipment, Chemical Sanitization - Temperature, pH, Concentration, and Hardness.**  A chemical sanitizer used in a sanitizing solution for a manual or mechanical operation at contact times specified under ¶ 4‑703.11(C) shall meet the criteria specified under § 7‑204.11 Sanitizers, Criteria, shall be used in accordance with the EPA-registered label use instructions, and shall be used as follows P: | | | | |
|  |  |  | | | | |
|  |  | (A) A chlorine solution shall have a minimum temperature based on the concentration and pH of the solution as listed in the following chart; P | | | | |
|  |  |  | | | | |
|  |  |  | | | | |
| **Concentration Range** | **Minimum Temperature** | |
| mg/L | pH 10 or less  oC (oF) | pH 8 or less  oC (oF) |
| 25 – 49 | 49 (120) | 49 (120) |
| 50 – 99 | 38 (100) | 24 ( 75) |
| 100 | 13 ( 55) | 13 ( 55) |

|  |  |  |
| --- | --- | --- |
|  |  | (B) An iodine solution shall have a: |
|  |  |  |
|  |  | (1) Minimum temperature of 20°C (68°F), P |
|  |  |  |
|  |  | (2) pH of 5.0 or less or a pH no higher than the level for which the manufacturer specifies the solution is effective, P and |
|  |  |  |
|  |  | (3) Concentration between 12.5 mg/L and 25 mg/L; P |
|  |  |  |
|  |  | (C) A quaternary ammonium compound solution shall: |
|  |  |  |
|  |  | (1) Have a minimum temperature of 24oC (75oF), P |
|  |  |  |
|  |  | (2) Have a concentration as specified under § 7‑204.11 and as indicated by the manufacturer's use directions included in the labeling, P and |
|  |  |  |
|  |  | (3) Be used only in water with 500 mg/L hardness or less or in water having a hardness no greater than specified by the EPA-registered label use instructions; P |
|  |  |  |
|  |  | (D) If another solution of a chemical specified under ¶¶ (A) - (C) of this section is used, the permit holder shall demonstrate to the regulatory authority that the solution achieves sanitization and the use of the solution shall be approved; P or |
|  |  |  |
|  |  | (E) If a chemical sanitizer other than chlorine, iodine, or a quaternary ammonium compound is used, it shall be applied in accordance with the EPA-registered label use instructions. P |