

Recommended Dilutions of Sodium Hypochlorite (Bleach) for Decontaminating the NASG

Exposure to too strong a bleach solution will cause the NASG to deteriorate. Because the NASG does not go inside the body, it can be decontaminated in a bleach solution that is one-tenth as strong as that used in conventional instrument processing (the NASG should be soaked in a 0.05% bleach solution; standard instrument processing uses a 0.5% bleach solution).

Dilution is necessary when using a pre-made bleach solution because bleach sold commercially is more concentrated than 0.05%. Because the concentration of commercially-sold bleach varies by brand and country, the amount of bleach needed to achieve a 0.05% solution will also vary. The following chart shows how to mix 0.05% solution from pre-made solutions.

| Brand of Bleach (Country) | Percent Available Chlorine | Bleach Needed to Achieve 500 Ppm = 0.05% = 0.5 g/l Concentration for NASG, for Every: | |
|--|----------------------------|---|--------------------|
| | | 1 Liter of Water | 50 Liters of Water |
| Valu Check'd | 3% | 0.17 ml | 8.33 ml |
| JIK (Africa) | 3.50% | 0.14 ml | 7.14 ml |
| Household Bleach, Clorox (USA, Canada, Peru), Eau de Javel (France, Viet Nam, 15o chlorum*), ACE (Turkey), Jif (Haiti), Red & White (Haiti), Odex (Jordan) | 5% | 0.10 ml | 5.00 ml |
| Blanqueador, cloro (Mexico) | 6% | 0.08 ml | 4.17 ml |
| Lavandina (Bolivia) | 8% | 0.06 ml | 3.13 ml |
| Chloros (UK), Leja (Peru) | 10% | 0.05 ml | 2.50 ml |
| Extrait de Javel (France) (48o chlorum*), Chloros (UK) | 15% | 0.03 ml | 1.67 ml |

In general, a bleach solution for soaking the NASG can be made by using one-tenth as much bleach **or** ten times as much water as is normally used for instrument processing.

In some countries, the concentration of sodium hypochlorite is expressed in chlorometric degrees (° chlorum); 1° chlorum is approximately equivalent to 0.3% available chlorine.

References

- Miller S, et al. A Comparative Study of the Non-Pneumatic Anti-Shock Garment for the Treatment of Obstetric Hemorrhage in Egypt. *International Journal of Gynecology and Obstetrics* 109: 1, 20-24.
- Tietjen, L., Cronin, W., McIntosh, N., *Infection Prevention for Family Planning Service Programs*, JHPIEGO, Baltimore, MD, 1992.
- U.S. Department of Health and Human Services Centers for Disease Control and Prevention. Use of Bleach in Prevention of Transmission of HIV in Health Care Settings. March 9, 1995.