Important information on NIOX VERO®

Cleaning and Filtration Efficiency

Guidance on cleaning the NIOX VERO®

- Clean the instrument and breathing handle with a cloth dampened with water or a mild detergent.
- The following categories of alcohol-free cleaning compound are also recommended:

Recommended Active Ingredients	*Concentrations*	*Examples*
Sodium Hypochlorite	<1.5%	
Quaternary Ammonium Compounds	<5%	• Benzalkonium Chloride
Biguanides	<1%	• Polyhexamethylene biguanide • Chlorhexidine Digluconate • Poly (hexamethylene biguanide) hydrochloride
Isothiazolinones	0.01%	• 2-methyl-2H-isothiazol-3-one • 5-chloro-2-methyl-2H-isothiazol-3-one
Pentapotassium bis(peroxymonosulphate) bis(sulphate)	40-55%	
Malic acid	20-25%	
Sulphamidic acid	4-6%	
Sodium dodecylbenzenesulfonate	3-5%	
Dipotassium peroxodisulphate	<1.56%	

- Cleaning products and cleaning wipes containing those ingredients within the recommended concentrations are suitable for use with NIOX VERO.
- We also have tested and can recommend the following cleaning wipes for use with the NIOX VERO device:
    - AzoDET Multisurface Detergent Wipes (Synergy Health Ltd)
    - AzoMAX Cleaning Wipes (Synergy Health Ltd)
    - Cavi-Wipes Bleach (Metrex Research LLC)
    - Chemgene HLD4I Wipes (MediMark Scientific Ltd)
    - Clinell Universal Wipes (Gama Healthcare Ltd)
    - Destix Disinfection and Cleaning Wipes (Kleinmann GmbH)
    - Dispatch Hospital Cleaner Towels with Bleach (The Clorox Company Ltd)
    - Medipal (Pal International Ltd)
    - Q-Connect Screen and Keyboard Cleaning Wipes (Interaction-Connect SA)
    - Triamin Disinfection (Wet-Wipes A/S)
- **DO NOT** clean the instrument or handle with products containing any type of alcohol, including any cleaning agents used to clean the facility, or other equipment in the area, as well as alcohol wipes or sprays used on patients. Do not use products such as, but not limited to:
    - Disinfectants, sprays, or wipes containing alcohol.
    - Any cleaning agents used to clean your facility or other equipment in the area, as well as alcohol wipes or sprays used on patients.
    - Hand sanitizer containing alcohol.

- Use of substances containing alcohol in the proximity of the NIOX VERO instrument may cause erroneous FeNO measurements.
- Minimise the use of any solvents near the device.

Information on the filtration efficiencies of NIOX VERO® mouth and nasal filters

- NIOX VERO mouth and nasal filters meet international standards of filtration performance for "Breathing System Filters for Anaesthetic and Respiratory Use" (ISO 23328-1, EN 13328-1), which many other respiratory devices in hospital settings also adhere to. The filters have been tested for bacterial filtration efficiency (BFE) and viral filtration efficiency (VFE) to the highest ASTM standard F2101.
- The BFE of the mouthpiece filter is ≥99.99% and the VFE is ≥99.97%.
- The BFE of the nasal filter is ≥ 99.93% and the VFE is ≥ 99.24%.
- In vitro studies were independently conducted to test the viral efficiency of the NIOX filters. A microbe 4 times smaller than the size of SARS-CoV-2 (COVID-19 virus) was used as the surrogate to test the filters' efficiency in preventing it from crossing through the filter.
  (Data on file available on request)

For any additional information, please contact the Vitalograph Technical Support Team:

- Email: technical.support@vitalograph.co.uk
- Phone: + 44 (0) 1280 827177
- Website: www.vitalograph.com