

NO₂ Sterilization Overview

Nitrogen Dioxide (NO₂)-based sterilization offers ultra-low temperature, minimal pressure requirements, no cytotoxic residuals, and fast cycle times.

Attribute	Parameter Range
Nitrogen dioxide gas sterilant	Boiling point 21°C
Low sterilant concentration	1 mg/L – 20 mg/L (less than 1%)
Ultra low or room temperature process	Lethality achieved at ambient temperatures (10-30°C)
Non-condensing gas sterilant	Greater efficacy in lumens, easier to aerate
Raising relative humidity reduces cycle time	70% - 80% RH provides rapid lethality 40% RH requires longer exposure time
Short exposure	Typically less than one hour
Low sterilant residuals	Residuals often not measureable, no increase in cytotoxicity observed

Comprehensive Sterilization Solutions

We are over 1,600 engineers, scientists, safety specialists and solution providers focused on eliminating threats to the health of humanity. We have global breadth and more than 90 years of deep expertise across Gamma, EO, E-Beam and X-ray sterilization. Our operations span 48 facilities in 13 countries to ensure we are the “point of safe” for our customers.

Safeguarding Global Health™ – with every product we sterilize.

Contact us to get your project started.

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