

Biotechnology Gas Standards

(Carbon Dioxide CO2, Oxygen O2, Nitrogen N2, Argon Ar)

YIGAS INTERNATIONAL LIMITED

1. Overview

Biotechnology processes require controlled gas environments for cell growth and fermentation. YIGAS provides CO2, O2, N2, and Ar with pharmaceutical-grade purity for biotech facilities.

2. Technical Specifications

Gas	Purity Level	Typical Phase	Temperature Range	Common Pressure
CO2	≥99.9%	Liquid / Gas	-78.5 °C	10—60 bar
O2	≥99.9%	Liquid / Gas	-183 °C	5—200 bar
N2	≥99.999%	Gas	-196 °C	5—200 bar
Ar	≥99.999%	Gas	-186 °C	5—200 bar

3. Industrial Standards

- All gases comply with:
- ISO 20421 – Cryogenic handling
 - USP <1047> – Bioprocess gas quality
 - EIGA Doc 169/20 – Food and pharma gases

4. Applications

- CO2: pH control in bioreactors
- O2: Cell culture oxygenation
- N2: Bioreactor blanketing
- Ar: Sterile gas for research

5. Packaging & Supply

Cylinder • Dewar Tank • On-site Gas Supply

6. Contact Information

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This document provides reference specifications for YIGAS biotechnology gases. Customized supply and technical support are available upon request.