

# Helium-3 ( $^3\text{He}$ )

Helium-3 is a light, non-radioactive isotope of ordinary helium whose natural abundance on earth is  $1.38 \times 10^{-6}$ . It is odorless, colorless and tasteless, and it is principally shipped and used in gaseous form for neutron detectors, nuclear magnetic resonance (NMR) tracers, spectroscopy, low-temperature physics, lasers, dilution refrigerators and nuclear fusion research.



PRODUCT DETAILS/PURITY SPECIFICATIONS	
Parameters	Reference Specifications
Helium-3, atomic fraction (%)	$\geq 99.8$
Helium-4, atomic fraction (%)	$\leq 0.2$
Total Helium (He-3 and He-4), volume fraction (%)	$\geq 99.995$
Nitrogen, volume fraction (%)	$\leq 6 \times 10^{-4}$
Hydrocarbons, volume fraction (%)	$\leq 6 \times 10^{-4}$
Hydrogen, volume fraction (%)	$\leq 6 \times 10^{-4}$
Oxygen and Argon in total, volume fraction (%)	$\leq 6 \times 10^{-4}$
Carbon Oxide, volume fraction (%)	$\leq 6 \times 10^{-4}$
Volumetric activity of Tritium, Bq/L (Ci/L)	$\leq 4.8 (1.3 \times 10^{-10})$
Tritium, atomic fraction (%)	$\leq 1 \times 10^{-11}$
Carbon Dioxide, volume fraction (%)	Not specified

Visit our website to download the following documents:

- Special Terms & Conditions
- Reference Certificate of Analysis
- Cylinder & Valve Specifications
- Safety Data Sheet (SDS)
- Form BIS-711
- Complete Document Set

Helium-3 orders are subject to Special Terms & Conditions.  
Please contact ISO FLEX to request a quote for Helium-3.