



ChromaCalGas



Frequently Asked Questions

About our answer to Chromatography
Calibration Gas

Building on FastCalGas' 20+ years of experience in marine calibration gas, **ChromaCalGas** is specifically designed for the growing fleet of dual-fuel LNG vessels around the world. This premium calibration gas empowers vessels to streamline charter-party compliance and exercise full control over their Chromatography system's precision.

Have a question that isn't covered below? Please get in touch via info@martek-marine.com.

Don't settle for anything less than peak chromatography performance.

What is ChromaCalGas?

ChromaCalGas is a highly specialist gas mixture designed to calibrate Chromatography systems. Chromatography is a process by which components of a mixture are separated and analysed. This process is widely used by industries such as the pharmaceutical, forensic, environmental and energy sectors.

Why would I need ChromaCalGas?

Chromatography systems are becoming more widely used worldwide, along with the rise of LNG-powered vessels. Having a Chromatography system on board a dual-fuel vessel means that that vessel can measure and analyse the composition of any natural gas it takes on board and therefore calculate its calorific value (how much is required to produce enough power to get from point A to point B). ChromaCalGas is specially formulated to ensure that these systems can be calibrated effectively to provide an accurate reading.

This is especially important for those vessels bound by charter-party agreements and reliant on accurate predictions of fuel consumption on their registered journey.

What is the standard mix for ChromaCalGas?

The standard mixture is comprised of:

- 5% C₂H₆, Ethane
- 2.5% N₂, Nitrogen
- 1% C₃H₈, Propane
- 0.5% CO₂, Carbon Dioxide
- 0.3% n-C₄H₁₀, Butane
- 0.3% i-C₄H₁₀, Iso-Butane
- 0.1% n-C₅H₁₂, Pentane
- 0.1% i-C₅H₁₂, Iso-Pentane
- 0.1% NEO-C₅H₁₂, Neopentane
- 0.03% n-C₆H₁₄/CH₄, n-Hexane/Methane

Why does Martek Marine have a Standard Mix for ChromaCalGas?

The purpose of ChromaCalGas is to give you a reliable analysis benchmark to compare with readings of your LNG fuel on board. You can be assured that our standard ChromaCalGas mixture is accurate to $\pm 2\%$, so by using the readings obtained from analysing our ChromaCalGas, and comparing the results to the fuel you have bunkered, you can reliably ascertain the constitution of the fuel you will be using and therefore calculate its calorific value.

What if I know that I require a bespoke mixture of ChromaCalGas?

We can offer additional bespoke mixtures of Chromatography Calibration Gas where required. However, for dual fuel vessels, we recommend using our standard ChromaCalGas mixture to ensure the accuracy of your liquified natural gas analysis.

What is the difference between a 'Certificate of Analysis' (COA) and the information on the label?

The information on the label of the cylinder summarises exactly what you ordered; the Certificate of Analysis (COA) is the result of analysis of what is in the cylinder.

This means that the list on the certificate of composition is what is actually contained within that specific cylinder.

What is the difference between tolerance and accuracy?

Accuracy on the certificate of conformity is the term used to describe the degree to which these measures can be relied upon. For example, if during analysis the analytical instrument gives a result of 20.4%, then due to the accuracy of $\pm 2\%$ the cylinder can hold a concentration between 20.0% and 20.8%.

Tolerance is the permissible range of variation of a gas percentage from its nominal value. Tolerance is governed by what is practically achievable within the constraints imposed by man and machine when manufacturing the cylinder.

MARTEK MARINE WORLDWIDE

- Headquarters in the UK
- Asia-Pacific office in Singapore
- Global network of distributors and service partners

Martek Marine Ltd (Head Office)
Adwick Park
Manvers
Rotherham S63 5AB
United Kingdom

Telephone: +44 (0) 1709 599 222
Email: info@martek-marine.com

Martek Marine Asia Pacific
298 Tiong Bahru Road
#05-01, Central Plaza
Singapore 168730

Telephone: +65 6037 1360
Email: apacsales@martek-marine.com

Registered in England and Wales number: 03930003

Martek Sustainability Statement

We are dedicated to building a sustainable and profitable business while continuing to operate responsibly with honesty, integrity and fairness.

At Martek Marine, we are committed to establishing high ethical standards of behaviour and effective corporate governance. This defines our strategic and financial objectives. Corporate responsibility remains central to delivering our strategy and achieving our success.

We are committed to conducting business in an environmentally responsible manner. We are putting in place processes to understand and address our responsibilities in respect of our operational impacts on the environment.

We aim to reduce the use of replacement parts and calibration to help overcome waste and excessive carbon emission.

Pioneering sustainable and innovative solutions for ship safety, performance and crew welfare.

www.martek-marine.com