



# SGS GAS Hydrogen Purity Testing Services

**SGS Gas Analysis Services (SGS GAS) has more than 20 years of expertise in hydrogen gas testing. SGS GAS is a trusted leader in the industry, specialising in the gas analysis solutions for Industrial Grade Hydrogen, Ultra-High Purity (UHP) Hydrogen and Hydrogen Fuel to the ISO 14687 specifications.**

# GAS

[SGS.COM/GAS](https://www.sgs.com/gas)

*Member of the SGS Group*



## GAS TESTING

On-site analysis of hydrogen quality.

Laboratory analysis of hydrogen to ISO 14687 Grade D.

Periodic testing of hydrogen generators, storage and fuelling stations.

On-site qualification of hydrogen installations.

**Inboard/ outboard helium leak testing with certification of leak rates.**

## INSTRUMENTATION

Design & build of sampling systems for diverse hydrogen applications.

Periodic & corrective maintenance of gas analysers on hydrogen service.

In house service facility for service and calibration of gas analysers.

Partnerships with leading analyser manufacturers enabling SGS GAS to supply, design and build analytical systems to meet each ISO 14687 analyte specification.

## KNOWLEDGE & EXPERTISE

Member of gas standard technical committee.

20+ years' experience in hydrogen testing and hydrogen analysis.

Accredited laboratory by INAB to ISO 17025.

Experience with all types of hydrogen generation technologies.

CompEx certified engineers for works in hazardous areas.

## SGS GAS OFFERS EXPERT GAS TESTING SERVICES FOR HYDROGEN ACROSS A VARIETY OF APPLICATIONS

We provide on-site analysis of hydrogen up to Grade 8.0+ and detect particulates down to 0.1 micron size to ensure purity and safety. Our laboratory analysis spans from industrial to fuel gas grade hydrogen, adhering to ISO 14687 standards as well as providing on-site testing solutions for Ultra-High Purity (UHP) hydrogen up to Grade 8.0+.

We also offer periodic testing of steam reforming production, hydrogen generators, storage tanks and fueling stations to ensure optimal performance, along with on-site qualification of hydrogen generation and purification systems. As an authorised distributor for industry leading gas analyser manufacturers, we provide high-quality instrumentation solutions. Our team designs custom sampling systems for hydrogen applications and offers both routine and corrective maintenance for gas analysers. Additionally, our in-house calibration facility ensures accurate and reliable analyzer performance.

With over 20 years of experience, SGS GAS is a leader in hydrogen gas testing. We are members of the ISO GTSC TC11 and NSAI gas standards committees, ensuring our practices meet the latest industry standards. Our ISO 17025 accredited lab delivers high-quality results, backed by extensive experience in hydrogen generation and storage solutions.

Constituents (assay)	Type I, Type II Grade D
Hydrogen fuel index (minimum mole fraction)	99,97 %
Total non-hydrogen gases (maximum)	300 µmol/mol
<b>Maximum concentration of individual contaminants</b>	
Water (H <sub>2</sub> O)	5 µmol/mol
Total hydrocarbons except methane (C <sub>1</sub> equivalent)	2 µmol/mol
Methane (CH <sub>4</sub> )	100 µmol/mol
Oxygen (O <sub>2</sub> )	5 µmol/mol
Helium (He)	300 µmol/mol
Nitrogen (N <sub>2</sub> )	300 µmol/mol
Argon (Ar)	300 µmol/mol
Carbon dioxide (CO <sub>2</sub> )	2 µmol/mol
Carbon monoxide (CO)	0,2 µmol/mol
Total sulphur compounds (S <sub>1</sub> equivalent)	0,004 µmol/mol
Formaldehyde (HCHO)	0,2 µmol/mol
Formic acid (HCOOH)	0,2 µmol/mol
Ammonia (NH <sub>3</sub> )	0,1 µmol/mol
Halogenated compounds (Halogen ion equivalent)	0,05 µmol/mol
Maximum particulate concentration	1 mg/kg

## WHY CHOOSE SGS GAS?

SGS GAS offers comprehensive hydrogen purity testing services backed by decades of experience, industry-leading instrumentation and a commitment to quality. Our accredited laboratory and expert team ensure that your hydrogen products meet the highest standards of purity and safety. Whether you need on-site analysis, laboratory testing or system qualification, SGS GAS has the expertise and tools to deliver reliable results every time.

Contact us today to learn more about how we can support your hydrogen testing needs.

## CONTACT US

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[WWW.SGS.COM/GAS](http://WWW.SGS.COM/GAS)

**GAS ANALYSIS SERVICES IS NOW PART OF SGS, THE WORLD'S LEADING TESTING, INSPECTION AND CERTIFICATION COMPANY.**

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