

Hydrogen



Description

Hydrogen is a colourless, odourless, tasteless and nontoxic gas at atmospheric temperatures and pressures. It is the most abundant element in the universe, but is almost absent from the atmosphere as individual molecules in the upper atmosphere can gain high velocities during collisions with heavier molecules, and become ejected from the atmosphere.

Applications

- Fuel source for Scientific Instrumentation
- Generators in large power plants are often cooled with hydrogen, since the gas processes high thermal conductivity and offers low friction resistance.
- Glass and Ceramics: In float glass manufacturing, hydrogen is required to prevent oxidation of the large tin bath.
- Food and Beverages: To hydrogenate unsaturated fatty acids in animal and vegetable oils, producing solid fats for margarine and other food products.
- Electronics: Used as a carrier gas for such active trace elements as arsine and phosphine, in the manufacture of semi-conducting layers in integrated circuits.

Hazard statement(s)

- Extremely flammable gas.
- Contains gas under pressure; may explode if heated.

Prevention statement(s)

- Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Response statement(s)

- Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
- Eliminate all ignition sources if safe to do so.

Storage statement(s)

- Protect from sunlight. Store in a well-ventilated place.

Other hazards

- Asphyxiant. Effects are proportional to oxygen displacement.

Signal Word: Danger

UN No.: 1049

Hazard No.: 2SE

Chem Symbol: H₂

Pictograms:



Hydrogen

General Specifications

Specifications	D Cylinder	E Cylinder	G Cylinder	12 Pack
Cylinder/Pack - m ³ (101.325kPa @15°C)	1.5	4.0	8.8	105.6
Water capacity per cylinder - L	10	23	50	600
Cylinder Colour	Red			
Outlet Connection	Type 20			
Package Dimensions (H x W x D) - mm	645 x 180	780 x 230	1,580 x 230	1,900 x 780 x 1,020

Cylinder dimensions are approximate – variations may occur due to manufacturing tolerances. Height includes the valve. Container sizes may vary from state to state.

Package Sizes Available



Typical Analysis

Product Type	H ₂	O ₂	Moisture	CxHy
UHP Grade	99.999%	<2 ppm	<3 ppm	<0.5 ppm
HP Grade	99.995%	<10 ppm	<10ppm	-
Industrial Grade	>99.9%	-	-	-

Quality Assurance

Supagas Pty Ltd is committed to comply with the requirements of ISO 9001-2019 and to continually improve the effectiveness of our Quality Management System.

Everyone at Supagas understands we must provide a safe environment for both our employees and the wider community. We are therefore committed to implement and maintain a continual improvement approach throughout the organisation whilst also meeting all applicable statutory and regulatory requirements.

NATA Accreditation

The Supagas Laboratory located in Ingleburn, NSW has a NATA



Accreditation (No. 18955). Accredited for compliance with ISO/IEC 17025 and ISO 17034.

For Further Information

On how we can help you with all your residential and industrial gas needs, view our website supagas.com.au, call Customer Service on 13 78 72 or drop in to your local Supagas branch.