# **HYDROGEN INDUSTRIAL**



Air Liquide's Gas Encyclopedia: https://encyclopedia.airliquide.com/hydrogen



Air Liquide produces and delivers hydrogen in total safety, in a mode of supply to suit our customer's needs: cylinder, tube trailer or on-site production

#### Applications

Metals heat treatment
Desulfurizing of petroleumbased fuels
Glass treatment
Fuel cells

# Transport information

Compressed gas

Proper shipping name Hydrogen, compressed
UN Nr 1049
ADR/RID Class 2 Classification Code 1 F



# Physical information

#### Properties

Hazards identification: extremely flammable Flammability range: 4 - 75 vol% in air Personal protection: ensure adequate ventilation, do not smoke while handling product.

#### Cylinder equipment

Valve: CGA 350 Cylinder color: Red

# Safety Data sheets

Access: https://www.airliquide.com/safety-data-sheets

# Product Specification

Components (% Vol. abs)  H2	Impurities (ppm v/v)	Supply mode	Packaging size	Pressure (bar)	*Capacity (Sm3)
≥ 99.95%	H2O ≤ 10	Crate 16	50L	200	162
	02 ≤10				

<sup>\*</sup>Typical capacities of the product are guaranteed for each cylinder in particular.



Issue: Dec 1st 2022 / Revision 12.0 Effective date: Dec 6th 2022

Air Liquide (Thailand) Local Product



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#### **Applications**

Carrier gas (GC) Instrumentation gas (Flame, Thermal analysis,...)

#### Transport information

Compressed gas

Proper shipping name UN Nr ADR/RID

Hydrogen, compressed 1049 Class 2 Classification Code 1 F



#### Physical information

Molecular weight . . . . . . . . . 2.016 g/mol Relative density, gas . . . . . . . 0.07 (air=1) 

#### **Properties**

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Caps: Red

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# **Product Specification**

Components (% Vol. abs)  H2	Impurities (ppm v/v)	Supply mode	Packaging size	Pressure (bar)	*Capacity (Sm3)
≥ 99.995%	H2O ≤ 5	Cylinder	47L	150	7
	02 ≤ 5	Cylinder	50L	150	7.5
2		Crate 16	50L	200	162

<sup>\*</sup>Typical capacities of the product are guaranteed for each cylinder in particular.



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the simple solution to enhance your analytical performance the commitment to quality for % to ppm analysis

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#### Physical information

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# **Properties**

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# Cylinder equipment

Valve: CGA 350 Cylinder color: Red Caps: White

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# **Product Specification**

Components (% Vol. abs)  H2	Impurities (ppm v/v)	Supply mode	Packaging size	Pressure (bar)	*Capacity (Sm3)
≥ 99.999%	H2O ≤ 3	Cylinder	47L	150	7
	02 ≤ 2	Cylinder	50L	150	7.5
	CnHm ≤ 1	**Crate 9	50L	200	90
		Crate 16	50L	200	162

<sup>\*</sup>Typical capacities of the product are guaranteed for each cylinder in particular.

<sup>\*\*</sup> On special request



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# ALPHAGAZ 1 HYDROGEN



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#### Applications

Carrier gas (GC)
Instrumentation gas (Flame, Thermal analysis,...)

#### Transport information

Compressed gas

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Valve: CGA 350 Cylinder color: Red Scandina Caps: White

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#### Product Specification

Components (% Vol. abs)  H2	Impurities (ppm v/v)	Supply mode	Packaging size	Pressure (bar)	*Capacity (Sm3)
≥ 99.999%	02 ≤ 2	Cylinder	50L	200	10
	H20 ≤ 2	**Crate 8	50L	200	81
	CnHm ≤ 0.5				
	CO2. ≤ 0.5				
	CO ≤ 0.5				

<sup>\*</sup>Typical capacities of the product are guaranteed for each cylinder in particular.

<sup>\*\*</sup> On demand



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