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**NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC  
OF CHINA**

**中华人民共和国国家标准**

**GB 8979-2008**  
**Replace GB/T 8979-1996, GB/T 8980-1996**

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**Pure nitrogen and high purity nitrogen and ultra  
pure nitrogen**  
**纯氮、高纯氮和超纯氮**

**Issued on May 15, 2008**

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**Issued by the General Administration of Quality Supervision, Inspection  
and Quarantine of the People's Republic of China & Standardization  
Administration of China**

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## Foreword

This Standard will replace GB/T 8979-1996 *Pure nitrogen* and GB/T 8980-1996 *High pure nitrogen*.

Comparison with GB/T 8979-1996 and GB/T 8980-1996, main changes of this Standard are as follows:

- To adjust the Normative References (Clause 2 in this Standard, Clause 2 in GB/T 8979-1996 and Clause 2 in GB/T 8980-1996);
- To modify the technical requirements for pure nitrogen and high nitrogen (Table 1 in this Standard, Table 1 in GB/T 8979-1996 and Table 1 in GB/T 8980-1996);
- To modify the determination methods of hydrogen, oxygen, carbonic oxide (Article 4.3 in this Standard, Article 4.3, 4.4 and 4.6 in GB/T 8979-1996 and GB/T 8980-1996);
- To add the determination methods of argon content (Article 4.5 in this Standard).

This Standard is proposed by China Petroleum and Chemical Industry Federation (CPCIF).

This Standard is under the jurisdiction of National Technical Committee on Gas of Standardization Administration of China.

Draft units of this Standard are The Southwest Research & Design Institute of Chemical Industry. (SWRDICI) and Oxygen Company of Wuhan Iron and Steel Group Co., Ltd.

Main drafters of this Standard are He Daoshan, Chen Yali, Tian Mingyong and Li Hong.

The previous edition of the part replaced by these following one:

- GB/T 8979-1988, GB/T 8979-1996;
- GB/T 8980-1988, GB/T 8980-1996.

# Pure nitrogen and high purity nitrogen and ultra pure nitrogen

## 1 Scope

This standard specifies the technical requirements, test methods, as well as packaging, marking, storage, safety warning of pure nitrogen, high purity nitrogen and ultra pure nitrogen products.

This standard applies to gaseous or liquid pure nitrogen, high purity nitrogen and ultra-pure nitrogen obtained after air separation or purification, mainly used as the protective gas, replacement gas, reaction gas, etc.

Molecular formula: N<sub>2</sub>

Relative molecular mass: 28.1034 (according to relative atomic mass in 2005)

## 2 Normative References

The articles contained in the following documents have become this standard when they are quoted herein. For the dated documents so quoted, all the modifications (excluding corrections) or revisions made thereafter shall not be applicable to this Standard. For the undated documents so quoted, the latest editions shall be applicable to this Standard.

GB/T 3864-2008 Industrial Nitrogen

GB/T 5832.1 Determination of moisture in gases—Part 1: Electrolytic method

GB/T 5832.2 Determination of moisture in gases—Part 2: Dew point method

GB/T 6285 Determination of trace oxygen in gases—Electrochemical method

GB/T 8981 Determination of trace hydrogen in gases - Gas chromatographic method

GB/T 8984.1 Determination of carbon monoxide, carbon dioxide and hydrocarbon in the gases-Part 1: Determination of carbon monoxide, carbon dioxide and methane in the gases-Gas chromatographic method

GB/T 14605 Determination of trace argon, nitrogen and krypton in oxygen — Gas chromatographic method

HG/T 2686 HG/T 2686-1995 determination of trace hydrogen, oxygen methane, carbon monoxide in inert gases—Zirconia detector

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