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

GB/T 18916.13-2024

Replacing GB/T 18916.13-2012

**Norm of water intake for industry - Part 13: Ethylene and
propylene**

工业用水定额 第13部分：乙烯和丙烯

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1. Structure and drafting rules for standardization documents" Drafting is required. This document is Part 13 of GB/T 18916 Industrial Water Quota. GB/T 18916 has been published in the following parts.

- 1. Thermal power generation;
- 2. Iron and steel integrated enterprises;
- 3. Petroleum refining;
- 4. Textile dyeing and finishing products;
- 5. Paper products;
- 8. Synthetic ammonia;
- 9. Monosodium glutamate (MSG);
- 10. Chemical pharmaceutical products;
- 11. Coal preparation;
- 12. Aluminium oxide;
- 13. Ethylene and propylene;
- 14. Wool textile products;

1 Scope

GB/T 18916.13-2024 is the Chinese national standard on norm of water intake for industry -

part 13: ethylene and propylene, in the field of environment and health protection, safety. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 15 March 2024 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 July 2024. Classification: ICS 13.060.25, CCS P 41. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the calculation method, water quota and management requirements for ethylene and propylene water quotas. This document applies to water management in ethylene and propylene production enterprises.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 7715 Industrial Ethylene

GB/T 7716 Polymerization grade propylene

GB/T 12452 General rules for water balance test

GB/T 18820 General rules for the compilation of industrial water quotas

GB/T 24789 General rules for the allocation and management of water metering instruments in water-using units

3 Terms and definitions

The terms and definitions defined in GB/T 18820 apply to this document.

4.1 Calculation scope

4.1.1 The calculation scope of water sources includes surface water (measured by water supplied by water purification plants), groundwater, urban water supply projects, and water from the city. Other water or water products purchased on site (such as steam, hot water, geothermal water, etc.).

4.1.2 The calculation scope of water intake for ethylene and propylene production includes

the main production system, auxiliary production system (machine repair, air compressor station, boiler, chemical inspection testing, storage and transportation, water system treatment, etc.) and ancillary production systems (office, greening, bathroom, canteen, toilet, etc.). Main production systems for different raw materials as follows:

- a) The main production systems for producing ethylene and propylene using ethane, naphtha and hydrogenation tail oil as main raw materials include raw material desulfurization and desulfurization. Arsenic, cracking furnace, quenching, compression, separation and flare gas recovery, ethylene product and propylene product storage tanks, etc., excluding gasoline filling Downstream products such as hydrogen, polyethylene, polypropylene, ethylene oxide/ethylene glycol, etc.;
- b) Using propane as raw material, the main production system of propylene through propane dehydrogenation includes propane dehydrogenation reaction, compression, separation, recovery and Product refining;
- c) The main production system of using coal as raw material to produce olefins (ethylene, propylene) through methanol includes coal gasification, synthesis gas purification, methanol synthesis, Methanol to olefins, olefin separation, olefin catalytic cracking (OCC), etc., excluding olefin polymerization and deep processing.